



# A CASE STUDY IN THE MANAGEMENT AND ACCOUNTING OF CAPITAL ASSETS: THE BUREAU OF LAND MANAGEMENT'S WORKING CAPITAL FUND

Treatment of capital assets in governmental accounting systems poses something of a theoretical dilemma. Recording all expenditures in the period of receipt, instead of the period of consumption, may sacrifice efficient management of assets with multi-period lives in favor of better cash control.

The Bureau of Land Management's (BLM) Working Capital Fund (WCF) seems to offer the best of both worlds. The WCF is a revolving fund dedicated to the purchase, maintenance and replacement of capital assets. BLM's operating entities pay the WCF for capital assets over the periods of the asset life in a manner similar to a lease.

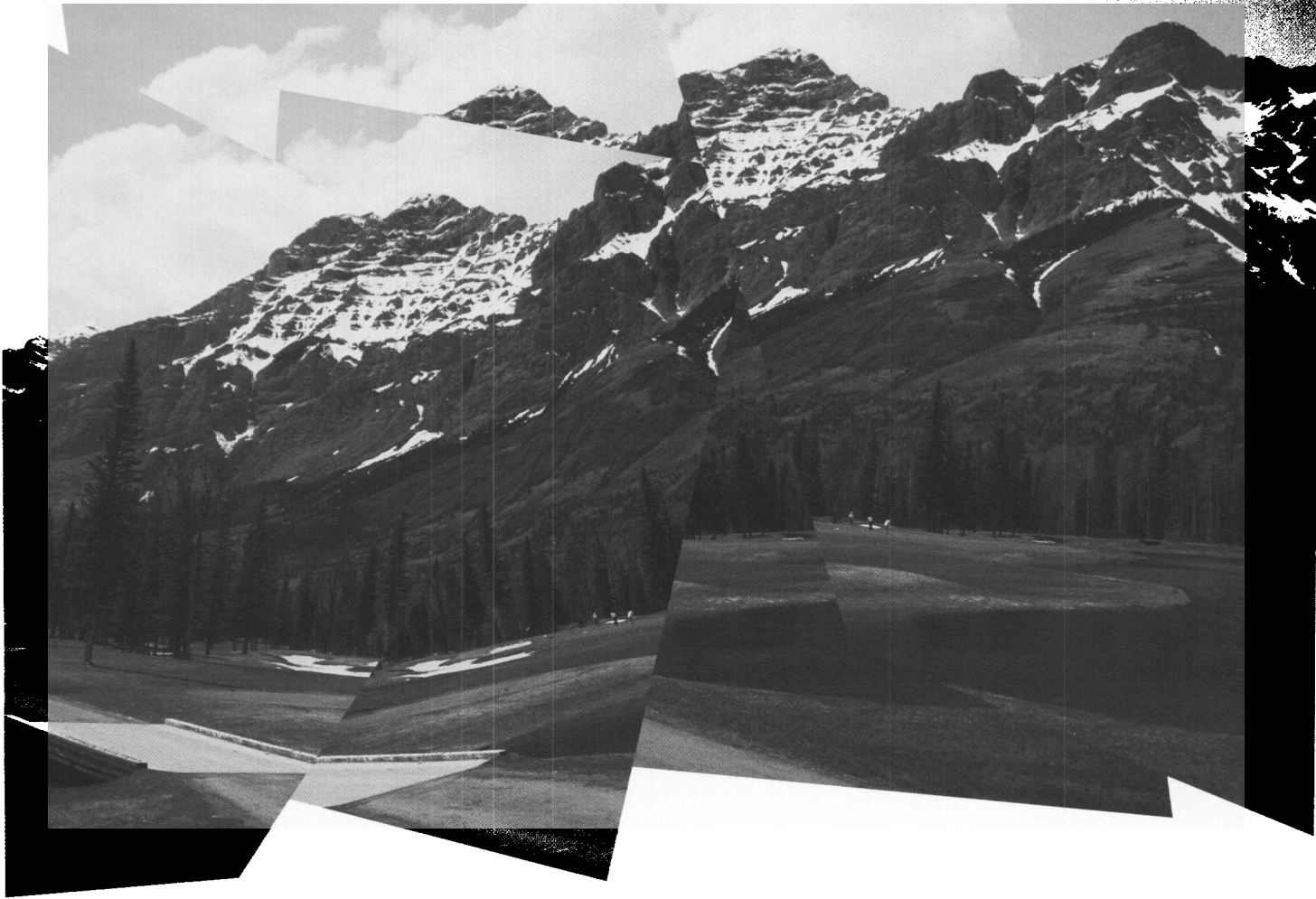
The problem of efficient capital asset management in the federal government is significant as capital assets exceed \$1 trillion. This large investment has attracted the attention of the Federal Accounting Standards Advisory Board (FASAB), which has defined plant, property and equipment as tangible assets that: have an estimated useful life of two or more years; are not intended for sale in the ordinary course of business; and are intended to be used or available for use by the entity.<sup>1</sup>

Accounting theorists have suggested using depreciation as a method of allocating the costs of long-lived assets to the shorter time periods for which financial statements are typically prepared. However, debate continues as to whether a historical valuation misstates the balance sheet or whether a current cost valuation misstates the profit and loss statement. These discussions, while useful to businesses, may have less relevance to government organizations. New Zealand, considered an innovator in governmental accounting, had trouble applying traditional depreciation methodology to "social" assets, particularly those viewed as infrastructure.<sup>2</sup>

Significantly, FASAB recognized that the federal government was unique and that there was "no need to be constrained by the boundaries of traditional financial statements and reporting formats" if other reporting techniques "help users assess performance and accountability."<sup>3</sup> The purpose of this article is to extend discussion of governmental asset accounting toward better achievement, rather than just assessment, of performance and accountability.

A short case study will document a capital replacement and maintenance accounting process that seems to affect favorably the management of capital assets. Discussion will focus on the effects of the asset cost measurement process on management behavior. The Working Capital Fund's apparent success in improving the management of capital assets may broaden thinking concerning the role of capital asset accounting in government.

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### A SHORT CASE STUDY: BLM'S WORKING CAPITAL FUND

The Department of Interior's Bureau of Land Management (BLM) owns some 272 million acres of land, approximately one-eighth of the United States. The size of its domain and the 2,000 laws for which it is responsible have led the bureau to a highly decentralized organization. Budget formulation and budget management exist at the lowest level of an organizational hierarchy that goes from national to state to district and on down to functional offices.

Capital equipment represents roughly 20 percent of BLM's budget and is second only to personnel cost. The Working Capital Fund (WCF), a national-level function, supports all BLM organizations that require extensive capital for equipment. For example, vehicles represent large capital expenditures at BLM, and the WCF handles roughly 90 classes comprised of 2,000 fire engines, bulldozers, graders and trucks.

The WCF receives no direct appropriations and operates as a revolving fund that must cover expenses with revenue. The fund uses two

revenue sources: maintenance fees and fixed ownership fees. Both fees are charged monthly to each district functional operation's appropriated budget authority. The maintenance fee covers all operating expenses for vehicles. Each vehicle is given a "credit card" to pay for fuel, oil, maintenance and repair. The WCF pools total costs for each vehicle class and charges individual vehicles on the basis of miles used. The fixed ownership fee charges each decentralized operation's appropriated budget for a monthly amount calculated to accumulate the cash funds needed for equipment replacement at the end of the asset's useful life. Fees are kept in reserve for vehicle replacement. No appropriation is sought at the end of each vehicle's useful life to pay for a replacement since the WCF has accumulated the required capital through previous charges against the appropriated operating budgets.

In summary, operating entities at BLM pay two ongoing monthly costs associated with their use of capital assets. Operating managers now know the true and full costs of capital equipment maintenance and replacement and

can make rational tradeoffs with other, competing needs.

## DISCUSSION

BLM's capital asset process provides a measurement focus and behavioral incentives that seem to improve the management of the BLM's capital assets. The system's impact will be discussed by reviewing criticism of capital asset management in government.

### *Mixing Capital and Operating Expenditures Distorts Budgets and Performance*

Fund accounting, as currently practiced, does not differentiate between capital and non-capital spending. Fund accounting recognizes all purchases, regardless of value or useful life, as current period expenditures. While perhaps useful for cash control of total budget authorizations, the method may distort evaluation of period budgets by aggregating day-to-day expenditures, such as salaries, with infrequent expenditures for long-lived capital assets.

Although government managers and legislative organizations are not interested in determining period profit, they might be interested in knowing period cost. Period cost, for example, would be useful to compare to period output for the purpose of measuring performance (soon to be important due to the Government Performance and Results Act). Period cost would also be useful to trend operating expenditures and measure continuous improvement. *Figure 1* shows how the timing of capital asset acquisition can distort spending trends. Depreciation techniques report costs in time periods that approximate the purchase's useful life. Theoretical justifications of this measurement technique cite the goal of matching revenue and expense by time period.<sup>4</sup> The capital asset is deemed to be consumed in the process of generating products or services for revenue. The difference between purchase price and depreciation is recognized as an asset on the corporation's balance sheet.

It is less clear how depreciation would mesh with fund accounting and budgeting practice in government. Would budget appropriations cover the period cost of depreciation or the initial cash outlay? If appropriations cover depreciation, what budgeting mechanisms will provide budget authorization for acquisition? If the appropriations process continues to cover acquisitions, then financial statements will become disconnected from budget statements by the timing differences between acquisition expenditures and depreciation ex-

penses.

The BLM's capital asset replacement cost system seems to bridge the accounting gap between the financial accounting technique of depreciation and fund accounting's cash-based budget methods. It does this by charging operating entities' appropriated budgets for amortized replacement costs and then accumulating the cash within the WCF until needed. The operating entities' period statements (after the initial purchase) then reflect a measure of expenditure related to replacing and maintaining the existing asset base.

### *Political Environment May Impact Efficient Replacement*

Budget crises in other departments, election timing and unrelated political issues might hamper the ability to replace assets when necessary for continued efficient operation or to take advantage of upgraded technology. Unfavorable political environments may result in retention of assets that work poorly, are unsafe or are expensive to maintain. As one federal manager stated, "Too often we spend more money than it's worth to fix something because we don't have or can't get timely spending authority to replace."

Favorable political environments, although perhaps rare these days, can also result in inefficiencies. Assets may be replaced early or over-specified because the political window for replacement is favorable.

It has also been suggested that the political difficulty of seeking large appropriations for capital acquisition during times of tight budgets creates perverse effects. Leasing a building, for example, requires a small fraction of the budget appropriation required for construction.<sup>5</sup> Unfortunately, leasing, while politically expedient due to lower current period cash needs, often costs considerably more than ownership in the long run.<sup>6</sup>

The BLM approach entirely avoids the need for capital appropriations to replace an existing asset base. The fixed ownership fee assures management that equipment replacement will occur when needed rather than when the political environment is favorable for appropriations in excess of nor-

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productivity increased 114 percent between January and November 1993.<sup>5</sup>

The new business approach eliminated program specialization among workers, eliminated all but two pages of the clients' application form, eliminated re-

casework for a family from 14 minutes to six minutes. Merced County's mainframe was upgraded for the first time in late 1995, five years after the initial mainframe upgrade required to support the new welfare system and growing coun-

of producing today's needed pay backs are possible only if a wide range of technology tools are used effectively to enable the long-term business plan.

- Technology overlaid upon inefficient business methods increases the overall administrative cost of government, and creates a barrier to responding to changing social and technical environments.

- Hard business choices are difficult for government managers to make amidst political program and technology debates. To meet the expectations of the government customer—the taxpayer—government managers must be willing to accept risk inherent in this political arena.

- Organizations that reward risk-taking and stop rewarding the status quo will see the earliest and most long-term results. Time is money...for government, for taxpayers and for clients.

- Collaborative innovation must be demanded of the government organization's business, program and technology managers. New roles must be defined. Business managers must become as knowledgeable about how to apply technology solutions as they are today about managing personnel and physical resources.

- Organizational structures and operational processes must be designed for speed and flexibility. Every employee/manager must understand organizational objectives, and must be expected to deliver against expected business results.

- The 80/20 rule should be used to govern the ratio of effort to cost to results. Then the last 20 percent should be reevaluated for value. The pseudo-perfection of bureaucracy...whether it results in hanging on to the last 20 percent of a process or the last 20 percent of a project...escalates the cost of government services beyond their commensurate value to taxpayers and beneficiaries alike.

- A predetermined pathway for change should set an expectation for adding technological advancements as they evolve, thereby elevating business practices to successively higher levels of effectiveness. The job is never done.

## TECHNOLOGY V.S. BUSINESS CASE DEBATE

While the county received widespread recognition for its achievements<sup>6</sup>, its approach was not universally accepted. Business objectives and measurable

### Example 2: REDESIGNED INTAKE MODEL

Visit	One	Two
Service	Application	Integrated Intake - Benefit Determination for ALL Programs (including Emergency Food Stamps, Immediate Need, Homeless, Benefit Delivery)*
Staffing	Receipt/System	Worker/System

\* Emergency food stamps and immediate need cash benefit delivery requires issuance clerk support services to distribute benefits.

dundant program screening steps at the point of application, eliminated specialized intake personnel and required determination of eligibility within 24 to 72 hours. Over 400 case management forms were eliminated. Training time for new workers was reduced from months to weeks. Employee turnover dropped from 35 percent to eight percent. Clients were permitted to choose appointments to accommodate work, child care and transportation needs.

The technology solution eliminated multiple program cases within a household, provided for error prone profiling of all cases before granting, automated the monthly reporting and noticing processes, provided worker alerts and ticklers, automated referrals for other services and supported direct interfaces with coordinating agencies. Example 2 depicts one aspect of a radical departure from the old business model in the application and eligibility determination (intake) process today and is provided for comparison with Example 1. In an emergency, visits one and two are combined into a single step.

Over 70 percent of the most intensive mainframe processing, which traditionally forces annual mainframe upgrades in most state data centers, was distributed to PCs. In 1993, an upgrade of PCs and communications infrastructure was carried out with in-house staff. The \$260,000 upgrade resulted in reducing the time it took to process the monthly

ty-wide demands. While most states with any level of program integration and automated eligibility determination experience hours to days of downtime following end of month processing, Merced's data center routinely completes end of month processing within a few hours of initiating the process.

In 1996 there is virtually no maintenance backlog as new program policy is easily added to the expert system. Training in new welfare policy is carried out as the expert system is updated.

## LESSONS LEARNED

In the process of managing almost 13 years of sometimes routine and sometimes radical change, Merced learned a number of lessons that will benefit other jurisdictions that are committed to changing the way welfare is managed, that are committed to reducing the costs inherent in today's welfare business processes and that are certain there is a better way to build welfare information systems.

- Long-term business planning is possible in government. The business plan must be independent of current technological and constantly changing political programmatic initiatives.

- Business needs and long term financial objectives must drive technology decisions. When technology is the driver it is usually because necessary business outcomes were never defined.

- Changed business methods capable

nance takes current budget dollars while a decrease in asset life has no current budget impact.<sup>7</sup>

The BLM process changes these incentives since operating managers pay for asset replacement from their appropriated operating budgets. If operating managers can extend asset life, then more funds are available for other operating needs, while shortened life or asset loss reduces funding available for other purposes.

Furthermore, the maintenance fee encourages the full use and preservation of capital assets by pooling costs for maintenance and repair. In one sense the WCF acts like an insurance policy by pooling the cost risks of repairing equipment damaged in use. Imagine the consequences of a BLM district fire manager who worried excessively about bringing his vehicles too close to the fire because damaged equipment might result in a large budget loss or anti-deficiency violation. By pooling repair costs and charging via the maintenance fee, the WCF insures operating managers against large losses.

The pooling mechanism in the maintenance fee also provides incentives to fully participate in preventive maintenance programs, since the fee is essentially fixed whether or not maintenance is performed. Moreover, anything that shortens useful life results in increased fixed ownership fees that detract from budget resources. Managers have no incentive to skip preventive maintenance and significant incentives to fully participate.

## CONCLUSIONS

Replacement cost accounting, as practiced at BLM, appears to answer many of the criticisms of public sector capital management. The methodology also seems to offer many incentives for better management of public assets, particularly those of an infrastructure nature where efficient maintenance and replacement is important. The system provides management incentives to perform preventive maintenance; frequent cost data to sensitize management to capital costs and spending alternatives; and the means to avoid dependence on large, and perhaps untimely, capital replacement appropriation requests. Furthermore, budgeters and legislators receive a better understanding of the ongoing costs of operation since accounting figures include amortized capital replacement costs.

While depreciation methodologies offer some of these benefits, depreciation contradicts the cash-based nature of fund accounting. Depreciation, rooted in the con-

sumption of historical costs, has proven most useful in the determination of period profits. This capability is essential for authorities seeking equity in taxation and for investors comparing investment opportunities. The value of depreciation measurement in government may be too abstract. Determination of period profit is unnecessary and comparison of the federal government to other government entities is problematic due to differences in size and scope. How, and to what, will depreciation measurement add value?

On the other hand, an enlightened accounting standard for property, plant and equipment may offer an opportunity for better management of public assets and infrastructure. The Bureau of Land Management's Working Capital Fund provides an example of how an accounting methodology can aid in the effective management, maintenance and replacement of the public sector capital asset base.

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## END NOTES

1 "FASAB: Accounting for Property, Plant, and Equipment: Exposure Draft," Federal Accounting Standards Advisory Board, Washington, D. C., 1995.

2 Pallot, June, "Accounting for Infrastructure Assets: Theory and Practice in New Zealand," working paper, CIGAR workshop, Valencia, Spain, 1994.

3 Ives, Martin, "A Fresh Look at Capital Asset Accounting - The New FASAB Proposals," *The Government Accountants Journal*, Summer, 1995, p. 25.

4 *The Theory and Measurement of Business Income*, 1961; and *Theory of the Measurement of Enterprise Income*, Robert Sterling, 1961.

5 Leonard, Herman, *Checks Unbalanced: The Quiet Side of Public Spending*, 1986.

6 *Ibid*, p. 180.

7 *Ibid*, p. 164.

