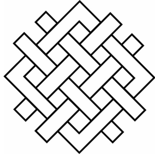

**World Resources Institute**

***Sustainable Enterprise Program***
A program of the World Resources Institute

# THE BOEING COMPANY: ENVIRONMENTAL MITIGATION COSTS

## Teaching Note

*For more than a decade, WRI's Sustainable Enterprise Program (SEP) has harnessed the power of business to create profitable solutions to environment and development challenges. BELL, a project of SEP, is focused on working with managers and academics to make companies more competitive by approaching social and environmental challenges as unmet market needs that provide business growth opportunities through entrepreneurship, innovation, and organizational change.*

*Permission to reprint this case is available at the BELL case store. Additional information on the Case Series, BELL, and WRI is available at: www.BELLinnovation.org.*

In 1991, The Boeing Company wanted to expand its aircraft manufacturing plant in Everett, Washington, for production of its new 777 airplane. This case examines the more than $50 million in environmental mitigation costs that the City of Everett imposed on Boeing before allowing it to expand the facility.

With this case, students determine the accounting treatment of these mitigation costs for financial reporting, cost accounting, and federal tax reporting. Students review treatment of these costs under different accounting systems and gain familiarity with environmental mitigation law.

*This teaching note was prepared by Dr. Naomi S. Soderstrom at the University of Colorado-Denver and Dr. Christopher H. Stinson at the University of Texas-Austin as an aid to facilitate class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.* *These notes have been improved by comments from Thomas Brucker, Don Cram, Lynn McDown, Christal M Hood, Sarah Jackson, Steve Sefcik, and participants of the 1995 BELL Conference.* *Copyright © 1998 World Resources Institute.*

## Use of the Case

This case has been taught to graduate accounting classes (where students have a substantial financial, managerial, and/or tax accounting background), to graduate environmental management classes (where students typically have relatively little exposure to accounting issues), and to a stand-alone graduate environmental accounting class. In the first instance, the case can be used as a "capstone" case to examine how different accounting systems treat the same set of costs. In the second instance, non-accounting students can review the treatment that the same cost receives in different accounting systems. In an environmental accounting class, the case can provide a lead-in from financial to managerial accounting topics.

This case is based largely on the 50-page Mitigation Agreement between The Boeing Company and the City of Everett.[1] Although the Mitigation Agreement is summarized in the case, it may be useful to assign the entire Mitigation Agreement so that students can appreciate its complexities. With this approach, one could teach the case across several class sessions (e.g., when discussing financial accounting, when discussing tax accounting, etc). In a final session, the entire document can be reviewed, thereby providing the opportunity to deal with the broader business, environmental, and policy issues of this case.

Accounting students are expected to judge what accounting treatment the different mitigation costs should receive for financial, managerial, and tax purposes. Handing out the Appendices to the case near the end of the class sessions allows students to see how Boeing handled these issues. On the other hand, non-accounting students gain from studying some Appendices before they begin working on the case (e.g., Appendix D in the case, the Deloitte/Touche letter which discusses one financial accounting treatment of the mitigation costs). This document allows non-accounting students to focus on interpreting the different accounting systems' treatment of the mitigation costs rather than having to learn financial or tax accounting in a relatively short time.

Both groups of students are generally surprised at the magnitude and diversity of environmental mitigation costs that Boeing had to pay. If class time permits, discussion of whether these costs are "fair" or "reasonable" usually generates an animated debate that wraps up the case.

## Appendices to the Case

Appendix A are The Boeing Company's Financial Statements for 1991 through 1995.

Appendix B is a description of Washington's State Environmental Policy Act (SEPA), (i.e., the primary law that required Everett to negotiate a Mitigation Agreement regarding Boeing's proposed expansion within the city).

Appendix C is an introduction to the Mitigation Agreement between the Boeing Company and the City of Everett, consisting of the first few sections of the 50-page document.

Appendix D presents the position of Boeing's external auditor, Deloitte & Touche, on how the mitigation costs should be reported for financial accounting purposes.

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[1] The full text of the Mitigation Agreement is available from the World Resources Institute. Please request your copy via fax, 202-729-7637, or by visiting the website www.wri.org/sep/bell.

Appendix E is an internal memorandum outlining the perspective of Boeing's managerial accounting group on the accounting treatment of the mitigation costs. This memorandum also provides a useful breakdown of the actual mitigation costs.

Appendix F contains copies of the overheads used in an internal presentation by Boeing's tax group. This presents its perspective on the tax treatment of these mitigation costs.

## Appendix to this Teaching Note

Appendix A is a report from Boeing's risk-management group describing an additional risk that Boeing incurs if it retains ownership of the buses used by the City of Everett. Specifically, Boeing potentially would incur the liability for claims arising from accidents, etc., with the buses even if Boeing were not directly at fault.

**Class Discussion**

With a review of The Boeing Company's business and financial condition in the early 1990s, students are encouraged to prepare for this case by their own examination of Boeing's annual reports from 1990, 1991, and 1992. Articles from the business press, such as Alex Taylor's "Boeing in Sleepy Seattle" *(Fortune,* 7 August 1995, pp. 92-98), may also be assigned.

### *1. What should the accounting treatment be for the mitigation costs imposed by the City of Everett? Are these costs material for a company of Boeing's size? How does the treatment djffer (jf it does) for financial, managerial, and tax accounting purposes?*

Financial Accounting Treatment

*Are these costs material for a company of Boeing's size?*

Although there is no precise threshold for materiality (e.g., even $1, if obtained fraudulently, is a material item), many accountants use thresholds of 5 percent of net income or 5 percent of total revenues as *guidelines* for determining when an amount is material. For Boeing, $50 million (see "Summary of minimum mitigation costs" in the case) is 3.2 percent of its 1991 net income. Thus the mitigation costs appear to be approaching (if not exceeding) a level that many CPAs would agree is material.

*What should the financial accounting treatment be for these mitigation costs?*

These costs will be either expensed or capitalized. As mentioned above, this accounting choice could have a material effect on Boeing's net income. (Consequently, Boeing's senior management could be personally affected by this decision if, as in many companies, its annual bonuses are linked to the firm's financial accounting results).

Concept 6 is the reference typically used to determine whether "costs" are creating new (or improving existing) assets—in which case the costs would be capitalized—or whether the costs should be expensed. Class discussion often revolves around which mitigation costs are creating or improving assets. One argument is that *all* mitigation expenditures are a necessary part of paying to obtain facility expansion permits and therefore all expenditures should be capitalized. An alternative view might be that some costs (e.g., for low-income housing) will have no impact on Boeing's assets and therefore should not be capitalized.

Deloitte and Touche (D&T) (see Appendix D to the case) argues that Financial Accounting Standard (FAS) No. 34, which describes when interest has to be capitalized, is an appropriate standard for this situation. D&T argues that the costs may be capitalized because they are similar to interest payments. First, they are necessary to bring the asset to the "condition and location for its intended use." Second, these costs could have been avoided during the acquisition period if expenditures for the asset had not been made. However, the class can discuss whether this analogy is appropriate and what the limits are on extending accounting theory and standards into new settings. Students frequently argue that mitigation costs are *not* analogous to interest expenses because mitigation costs are an up-front cost, do not vary with how the project is financed, and have much of their impact offsite. Obviously, specific portions of the mitigation costs can be treated differently (e.g., costs that are closely associated with the facility can be capitalized, lobbying costs, low-income housing costs, etc. can be expensed).

Another issue that may arise during discussion is that if the mitigation costs are capitalized, the total cost could be greater than the market value of the project. Unfortunately, precise valuation of this unique project is difficult because there are few, if any, comparable facilities.

Boeing's final decision was to capitalize payments to government entities and expense or capitalize on-site costs as appropriate under GAAP (i.e., as if they existed independently of the Mitigation Agreement). Despite the possible materiality of these mitigation costs, Boeing's annual reports do not discuss them separately. Apparently Boeing felt that the amounts were not large enough to warrant treatment as separate line items in its annual reports.

Some issues are associated with scheduling the cost capitalization. Boeing's plan was that "all fixed and determinable mitigation payments will be initially accrued and assigned to a specific holding account" and that "capitalization against specific capital asset accounts may then be achieved on a pro-rata basis over the planned expansion period as construction of the capital assets are completed." Not all the costs were capitalized to building accounts; some were capitalized to land.

Further, some students may be aware that corporate funds may be given to Community Development Corporations (CDCs) either as donations or as loans. In this particular case, Boeing's contribution was a donation and not a loan. However, in other communities (e.g., New York City) payments to CDCs may be loans that will be repaid eventually;[2] obviously, if these payments were loans, they would be recorded as such on the balance sheet.

Tax Accounting Issues

*What should the tax accounting treatment be for these mitigation costs?*

For tax purposes, mitigation expenditures could be treated in three possible ways. First, the expenditure could be a deductible expense (i.e., lowering the firm's taxable income and net taxes). This alternative would apply if one regarded these mitigation expenses as "business expenses" incurred when Boeing had no tangible property interest (or, as imaginatively suggested by Boeing's tax department as "charitable

[2] For example, New York City provides "long-term loans" to the Local Initiative Support Corporation (USC) for its local revolving loan fund to facilitate housing developments. Theoretically, the Community Development Corporations (CDCs), receive loans and grants from the LISC, could repay their loans to the USC and theoretically, USC could repay its loan to NYC. However, repayment to NYC was never scheduled. Because NYC had little prospect of ever getting its money back, it had an accounting issue regarding whether to show USC loans as expenditures (i.e., grants) or as loans.

contributions" [see Appendix F to the case]). Second, the expenditure may be capitalized. Then there would not be a 1:1 reduction in current-year taxable income, but when the capitalized asset is sold in the future, capital-gains would be smaller and taxes lower than if the expenditure had not been capitalized. Additionally, if the underlying asset were depreciable, capitalization of these expenditures would increase depreciation deductions that the firm could claim until the asset was sold (or fully depreciated). Third, the IRS might require the expenditure to be treated as a non-deductible expense (e.g., if these mitigation costs were viewed as being similar to fines or penalties). Here, the mitigation expenditures would have no effect on the firm's current or future tax payments. However, because SEPA does not describe these mitigation costs as fines or penalties, this third alternative is quite unlikely. In summary, if Boeing was trying to minimize its current-year tax payments, it would like to expense as many of these expenditures as possible.

Just as one refers to Financial Accounting Standards and related publications to determine the financial accounting treatment of specific costs, one refers to the Internal Revenue Code (IRC), related case law, Internal Revenue Regulations, and similar documents for guidance on tax treatment. There is no guarantee that a specific expenditure will receive similar treatment from both GAAP and tax law. For example, under GAAP, firms are usually required to expense the total *anticipated* cost of cleaning up hazardous-waste sites (and to record the booked expense as a contingent liability); on the other hand, the IRS has required (at different times, as its policies changed) either capitalization or expensing of these clean-up costs only as they are actually incurred.

In this case, IRC §263 is the guiding statute. It states that no deduction is allowed for "permanent improvements or betterments made to increase the value of any property or estate." Consequently, Boeing must capitalize most, if not all, these mitigation expenditures. Depending on the specific expenditure, the actual expense would increase the tax basis of the underlying land, a specific building, etc.

Managerial Accounting Issues

*What should the managerial (cost) accounting treatment be for these mitigation costs?*

Mitigation costs could be treated for managerial accounting purposes in three ways: they could be expensed, capitalized, or ignored, depending on the purpose(s) for which the internal accounting information was being used (e.g., determining division manager performance bonuses, making make/buy decisions for specific parts). Historically, Boeing expensed (and not capitalized) "small" expenses as a matter of practice.

Individuals at Boeing may have strong preferences for one treatment or another. For example, the 777 division manager would probably prefer to have these costs expensed in the construction year(s) if his annual bonuses were based on divisional return on assets (ROA). Alternatively, if divisional bonuses were awarded competitively, the 747 division manager, with older, less efficient facilities, might prefer to have the mitigation costs capitalized. Obviously, the decision on how to treat these costs for cost accounting purposes depends in part on Boeing's systems for performance review, product pricing, etc. It is not clear that the case materials provide enough information, to make an unambiguously superior decision in this setting. Further, the costs can (and probably should) be treated differently in different decision contexts.

Boeing's proposed treatment of these costs for cost accounting purposes are described in Appendix E to the case. In particular, Boeing's managerial accounting group proposes to do the following:

- Expense investigation costs,
- Capitalize asset modification and land improvement, and
- Expense mitigation costs that are not deemed to add value to Boeing's assets.

Interestingly, approximately a year later, Boeing modified this original decision and decided to expense *all* mitigation costs and charge none of them to the division (or, implicitly, the division employees' ROA performance evaluations). Note that Boeing was never concerned about consistency among the financial, tax, and managerial accounting treatment of these costs; many students find this position surprising (although they should have encountered this issue in previous accounting classes).

### 2. *Where do accounting standards or regulatory requirements dictate specific accounting treatments, and where does Boeing have flexibility in its accounting decisions? What are the management implications of these latter decisions?*

In large part, the financial, tax, and managerial accounting aspects of this question have been dealt with in the preceding parts of this Teaching Note. However, an important legal liability and risk issue remains to be discussed (as class time permits).

The Mitigation Agreement proposes that Boeing retain ownership of the vans and buses (to be used by the City of Everett to alleviate some of the traffic problems expected from Boeing's expansion). Appendix A to this Teaching Note is a memorandum from Boeing's risk-management group pointing out that if Boeing owns vans and buses operated by the City of Everett, Boeing is incurring some legal risk of liability for van/bus accidents. From a risk-minimizing perspective, it is clearly better to transfer ownership of the vans and buses to Everett.

What is the accounting treatment if this proposed ownership transfer occurs? The financial and managerial treatment would be similar to the treatment proposed above. The tax treatment of this "contribution" is ambiguous (although it could not be treated as a charitable contribution). The cost of the vans and buses should probably be combined with the other mitigation costs, capitalized, and (if appropriate) depreciated. Note that the capitalized mitigation costs would be depreciated over a time period determined by the underlying asset (e.g., the new building): Boeing would have to use a longer depreciation period than if it owned the vans and buses outright. However, it is unlikely that the NPV of the tax savings from direct ownership of the buses is greater than the expected cost of litigation arising from van/bus accidents in Boeing-owned, Everett-operated public transportation.

### 3. *Are these mitigation costs reasonable or excessive? How is a "fair" or "reasonable" cost determined? Why were all firms moving to Everett (e.g., the hotel mentioned in the case) not charged comparable amounts? What alternatives does Boeing have to paying these costs?*

Appendicies B and C to the case summarize the City of Everett's responsibilities under SEPA. Although state law imposed the general requirement that Boeing pay for the environmental impacts of its facility expansion, the Mitigation Agreement requirements were the result of negotiations between Boeing and the city.

As mentioned in the case, Boeing executives expressed some dissatisfaction with the magnitude and extent of Boeing's mitigation responsibilities. A sense of unfairness seemed to be exacerbated when a

hotel chain considered Everett shortly after the Boeing agreement was signed. Everett offered financial incentives to the hotel chain and did not require payment of explicit mitigation costs. This state of affairs probably reflected a view that the hotel would have less social and environmental impact on the community than would an airplane manufacturer.

Nonetheless, Boeing had some leverage during its negotiations and discussions with Everett. Several communities (including Spokane, WA) were willing to provide financial incentives to entice Boeing into relocating its Everett facilities. Despite these offers, Boeing apparently felt that the mitigation costs were less than the advantages of expanding a facility that was near its other Seattle area operations and close to major shipping centers.

The issue of what costs are reasonable or excessive leads to a discussion of economic “externalities” (e.g., the environmental degradation that the company imposes on the community as a whole and does not pay). One of SEPA’s goals is to force businesses to internalize some otherwise externally borne costs, thereby reducing their negative impacts on a community.

Although Boeing’s project would impose social and environmental costs on the community, Boeing would also increase local employment and benefit the local economy, and the city’s sales tax revenues would increase. These benefits may seem even greater when compared to the benefits provided by a new hotel. That is, hotel employees are often relatively unskilled and low-paid, whereas Boeing employs engineers, machinists, and other relatively high-paid individuals. Students can discuss how the costs and benefits of Boeing’s expansion can be weighed and whether such cost-benefit comparisons should be included in future SEPA-like legislation.

## Appendix A

Boeing Proprietary Information

To: XXXXXXXXXXX
CC: XXXXXXXXXXX
Subject: Agreement with Transit Districts
Reference: XXXXXXXXXXX

Pursuant to your request, the following is provided for your consideration. Unless the tax benefit to Boeing is substantial, Boeing should consider alternative means to meet that portion of its mitigation obligation to the City of Everett that requires providing Boeing owned buses and vans to the Districts. The proposed relationship between the City, the Districts and Boeing presents a significant degree of liability to the Company that may not be offset by the tax advantage. It may not be possible to protect Boeing through indemnification and insurance provisions in the agreement. In the absence of a significant tax benefit to Boeing, or if Boeing has not already committed otherwise to the City, it would be in Boeing's interest to simply provide the City equivalent funds. If there is a significant tax benefit to Boeing, then Boeing should become a title holder only with no role in the acquisition, acceptance and delivery of the Vehicles.

If the proposed relationship you have described in the referenced memo is justified, it is appropriate that upon delivery of Vehicles to the City and Districts, the City and Districts assume the risk of loss of the Vehicles and Indemnify Boeing for any Claims which may arise out of the Agreement whether or not such Claims are due to the concurrent or sole negligence of Boeing (please find a mark up of clause 6 reflecting this position, attached). Such indemnification will have to be obtained from the City and all of the Districts separately. It is not likely, as you have noted, that the City and the Districts will agree to joint and several liability.

It is also appropriate under the proposed terms that the City and the Districts provide insurance to respond to the contractual obligation assumed under clause 6. If Boeing has an insurable interest in the Vehicles requiring that they be repaired or replaced, it will be necessary to obligate the City and the Districts to maintain physical damage insurance covering the Vehicles. In any event, the City and the Districts will be required to maintain Automobile Liability Insurance with significant limits of not less than fifteen million dollars per occurrence combined single limit for bodily injury and property damage covering all of the Vehicles and to maintain Comprehensive General Liability insurance including contractual liability coverage with limits of not less than five million dollars. These provisions will be provided to you separately, as you have requested. It is likely that each District will have different levels of deductibles, self retention layers and excess covers. It will be difficult to sort out the variables and draft provisions to address those circumstances.

While reviewing the proposed agreement, two other provisions caused concern from a risk management perspective. First, Section 7 requires signage that indicates that the Vehicle is provided by Boeing. I believe that such signage increases the likelihood that Boeing could become involved in a claim. Second, Section 14 requires the return of Vehicles to Boeing in the event of a default and subsequent delivery of the Vehicles to a new user District. It would be preferable to have the Vehicles pass directly from District to District and only come through Boeing as a last resort.

In addition, though not an insurance issue, you may want to consider if it would be in Boeing's interest to disclaim any liability to the City and the Districts under any concept of express or implied warranty and for any consequential or other damages.

I trust that this response will facilitate your efforts. Please call me if you have any questions.