SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 11-K

Annual Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934

05059633

For Fiscal Year Ended
December 31, 2004

Commission File No. 333-19241

Burlington Northern Santa Fe
Investment and Retirement Plan
(Full Title of Plan)

BURLINGTON NORTHERN SANTA FE CORPORATION
2650 Lou Menk Drive, Second Floor
Fort Worth, Texas 76131-2830

(Name of issuer of securities held pursuant to the plan and the address of its principal executive office)

BURLINGTON NORTHERN SANTA FE
INVESTMENT AND RETIREMENT PLAN

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* Other supplemental schedules required by Section 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have been omitted because they are not applicable.

Report of Independent Registered Public Accounting Firm

To the Participants and Administrator of
Burlington Northern Santa Fe Investment and Retirement Plan

In our opinion, the accompanying statements of net assets available for benefits and the related statement of changes in net assets available for benefits present fairly, in all material respects, the net assets available for benefits of Burlington Northern Santa Fe Investment and Retirement Plan (the "Plan") at December 31, 2004 and 2003, and the changes in net assets available for benefits for the year ended December 31, 2004 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets (held at end of year) as of December 31, 2004 is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, are fairly stated in all material respects in relation to the basic financial statements taken as a whole.

PricewaterhouseCoopers LLP

Fort Worth, TX
June 28, 2005

BURLINGTON NORTHERN SANTA FE
INVESTMENT AND RETIREMENT PLAN
STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS
(In thousands)

	As of December 31,	
	2004	2003
ASSETS		
Investments, at estimated fair value:		
Investment in BNSF 401(k) Plans Master Trust (Note 3)	$ 443,506 *	$ 384,126 *
Participant loans	19,305	21,195
	462,811	405,321
Investments in registered investment companies, at quoted market prices:		
Vanguard 500 Index Fund	173,531 *	166,128 *
Vanguard Windsor II Fund	74,159 *	51,352 *
Vanguard Wellington Fund	51,715 *	40,891 *
Vanguard International Growth Fund	39,299	28,005
Vanguard Growth Index Fund	35,805	33,685
Vanguard Total Bond Market Index Fund	29,200	29,365
Wells Fargo Small Company Growth Fund	53,769 *	49,089 *
	457,478	398,515
Total assets	920,289	803,836
LIABILITIES		
Contributions owed to participants	-	4
NET ASSETS AVAILABLE FOR BENEFITS	$ 920,289	$ 803,832

* Represents 5% or more of net assets available for benefits.

The accompanying notes are an integral part of the financial statements.

BURLINGTON NORTHERN SANTA FE
INVESTMENT AND RETIREMENT PLAN
STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
(In thousands)

	Year Ended December 31, 2004
Additions	
Investment income:	
Plan interest in BNSF 401(k) Plans Master Trust investment income (Note 3)	$ 73,918
Interest and dividend income from registered investment companies and participant loans	11,163
Net appreciation in fair value of registered investment companies	37,017
Total investment income	122,098
Contributions:	
Employer	13,143
Participant	33,195
Total contributions	46,338
Asset transfers from other plans, net	586
Total additions	169,022
Deductions	
Benefit payments to participants	52,514
Administrative expenses (Note 4)	51
Total deductions	52,565
Net increase	116,457
Net assets available for benefits:	
Beginning of year	803,832
End of year	$ 920,289

The accompanying notes are an integral part of the financial statements.

Notes to Financial Statements

NOTE 1 – DESCRIPTION OF AND AMENDMENTS TO THE PLAN

The following description of the Burlington Northern Santa Fe Investment and Retirement Plan (the Plan) provides only general information. Participants should refer to the plan document for a more complete description of the Plan's provisions.

General

The purpose of the Plan, which is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA), is to offer eligible employees of Burlington Northern Santa Fe Corporation and certain affiliated companies (BNSF or Employer) an opportunity to invest a portion of their income on a regular basis through payroll deductions. These amounts, supplemented by the Employer's matching contributions, may be invested at the participant's direction in various investment funds.

Administration

BNSF is responsible for the administration and operation of the Plan. The Plan is administered by the Burlington Northern Santa Fe Employee Benefits Committee appointed by the Chief Executive Officer of BNSF. Vanguard Fiduciary Trust Company (the Trustee) is responsible for the custody and management of the Plan's assets, and an affiliate of the Trustee provides recordkeeping services to the Plan.

Master Trust

The Plan participates in the BNSF 401(k) Plan Master Trust (the Master Trust) and, along with The Burlington Northern and Santa Fe Railway Company Non-Salaried Employees 401(k) Retirement Plan (the Non-Salaried Plan), owns a percentage of the assets in the Master Trust.

Eligibility

Any salaried employee, except a non-resident alien, of the Employer or of certain affiliated companies, who is not subject to a collective bargaining agreement, is eligible to participate in the Plan on the first of the month following 30 days of compensated service with the Company.

Eligible employees may become participants in the Plan by authorizing regular payroll deductions and designating an allocation method for such deductions.

Contributions

Compensation, as generally defined under the Plan, is the total of base salary and bonuses. The Plan provides that the annual compensation of each employee taken into account under the Plan for any year may not exceed a limitation pursuant to requirements of the Internal Revenue Code. During 2004, the limitation was $205 thousand.

Effective April 1, 2004, the maximum limitation on total before-tax and after-tax employee contributions was increased from 15% to 25% of a participant's base salary and Incentive Compensation Plan bonus award with separate elections for each, not to exceed certain limits as described in the Plan document. All employee-elected contributions are made by means of regular payroll deductions.

Notes to Financial Statements

The Employer matches 50% of the first 6% of employee-elected before-tax contributions for each pay period. Employer matching contributions will be made in cash, as soon as practicable after the end of each pay period, within ERISA regulated limitations. The Employer may make an additional matching contribution of up to 30% of the first 6% of employee-elected before-tax contributions for each pay period depending on BNSF's performance. Subsequent to December 31, 2004, the Board of Directors of BNSF (the Board) approved an additional contribution of $5,246 thousand which will be reflected in the 2005 financial statements. These additional contributions are recorded in the financial statements at the time of approval by the Board. Under the provisions of the Plan, additional Employer matching contributions will be made solely from the year-to-date net income or retained income of BNSF.

During the 2004 plan year, in accordance with the provisions of the IRC, no participant could elect more than $16 thousand in before-tax contributions, which includes a $3 thousand limit for catch-up contributions. The limitation does not include the Employer's matching contributions. In addition, the Plan provides that annual contributions for highly compensated employees (as defined by law) may be limited based on the average rate of contributions for lower paid employees. In no event may the total of employee-elected before-tax contributions, employee after-tax contributions, and the Employer's matching contributions exceed the lesser of $41 thousand or 100% of a participant's compensation, as defined in Treasury Regulation Section 1.415-2(d), for any participant in a calendar year, subject to certain cost-of-living adjustments. Contributions with respect to any participant may be further reduced to the extent necessary to prevent disqualification of the Plan under Section 415 of the IRC, which imposes additional limitations on contributions and benefits with regard to employees who participate in other defined contribution plans.

Participants' Accounts

Each participant's account is credited with the participant's elective contributions, BNSF's matching contributions, interest, dividends and gains and losses attributable to such contributions. The benefit to which a participant is entitled is limited to the participant's vested account balance.

Participants may direct the investment of their account balances into various investment options offered by the Plan. The Plan offers a BNSF common stock fund, seven mutual funds and a guaranteed investment contract (GIC) stable value fund as investment options for participants. The BNSF common stock fund and the GIC stable value fund investment options are held by the Master Trust.

Participants may allocate both elective and employer matching contributions to any or all of the investment options in multiples of 1%. Participants may reallocate amounts from one investment option to another within certain guidelines as described in the plan document and the relevant investment prospectus.

Vesting

Participants are immediately vested in their contributions plus any income or loss thereon. Employer matching contributions become fully vested in accordance with the following schedule:

Number of Years of Vesting Service*	Vested Percentage
Less than 1 year	0%
1 year but less than 2 years	20%
2 years but less than 3 years	40%
3 years but less than 4 years	60%
4 years but less than 5 years	80%
5 years or more	100%

* The term "Vesting Service" is defined as the number of plan years in which the employee is compensated for at least 1,000 hours of work by the Employer, in any capacity.

Participant Loans

Participants may borrow from their accounts a minimum of $1 thousand up to a maximum equal to the lesser of $50 thousand or up to 50% of their vested account balance. Participants may have up to two loans outstanding at any time. Loan transactions are treated as a transfer to (from) the investment fund from (to) the participant loan. Loan terms can be up to five years, or fifteen years for the purchase of a primary residence. The loans are collateralized by the balance in the participant's account and bear interest at the prime rate plus 1%. Interest rates on loans outstanding as of December 31, 2004 range from 5.00% to 10.75%. Principal and interest are paid ratably through payroll deductions for active employees.

Benefit Payments to Participants

Subject to certain Plan and IRC restrictions, a participant may, at any time, elect to withdraw all or a specified portion of the value of the participant's account in the Plan, including vested Employer matching contributions. Both the Plan and the IRC allow a participant who has not attained age 59 ½ to withdraw the participant's before tax contributions only in the event of hardship (as defined in the Plan). Earnings on before-tax contributions credited after December 31, 1988, are not available for withdrawal for hardship.

No distributions from the Plan, unless in the event of hardship, will be made until a participant retires, dies (in which case, payment shall be made to his or her beneficiary), becomes disabled or otherwise terminates employment with the Company.

Distributions generally occur or commence no later than as soon as reasonably practicable following the later of the time when a participant attains age 65 or terminates employment. A participant who terminated employment prior to age 65 will receive a distribution at age 65, but may request a distribution at any time prior to attainment of age 65. By law, a distribution of benefits must occur or commence no later than April 1 of the calendar year following the later of the year when a participant attains age 70 ½ or retires. In the event of the death of a participant, the participant's account is distributed to his beneficiary. Immediate lump sum distributions are required in the case of accounts valued at up to $5 thousand.

Forfeited Accounts

The Plan provides for the forfeiture of nonvested Employer matching contributions related to terminated employees. Forfeitures shall be used in the following order (as described by the plan document):

- First, to restore previously forfeited amounts of other participants who have resumed employment with the Employer;
- Second, to offset future Employer matching contributions; and
- Finally, to pay administrative expenses of the Plan.

Forfeitures used were $6 thousand and $2 thousand in 2004 and 2003, respectively. At December 31, 2004 and 2003, unused forfeited balances totaled $91 thousand and $32 thousand, respectively.

Plan Amendment and Termination

The Plan may be amended at any time. No such amendment, however, may adversely affect the rights of participants in the Plan with respect to contributions made prior to the date of the amendment. Employer matching contributions may be discontinued and participation by the Employer in the Plan may be terminated at any time at the election of the Employer. In the event the Plan is terminated, each participant shall receive the full amount of plan assets in their respective accounts.

The Plan is subject to the provisions of ERISA applicable to defined contribution plans. The Plan provides for an individual account for each participating employee. Plan benefits are based solely on the amount contributed to the participating employee's account plus any income, expenses, gains and losses attributed to such account. Consequently, plan benefits are not insured by the Pension Benefit Guaranty Corporation pursuant to Title IV of ERISA.

Voting Rights

Each participant is entitled to exercise voting rights attributable to the shares of BNSF's common stock allocated to the participant's account.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The following accounting policies, which conform with accounting principles generally accepted in the United States of America and with the requirements of ERISA, have been used consistently in the preparation of the Plan's financial statements:

Basis of Accounting

The financial statements of the Plan have been prepared under the accrual method of accounting.

Use of Estimates

The preparation of financial statements, in conformity with accounting principles generally accepted in the United States of America, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Actual results could differ from those estimates.

Investment Valuation and Income Recognition

The Plan's investment in the Master Trust is stated at fair value. Shares of registered investment companies are valued at quoted market prices which represent the net asset values of shares held by the Plan at year-end. Participant loans are valued at their outstanding balances, which approximate fair value.

Purchases and sales of investments are recorded on a trade-date basis. Interest income is recorded when earned. Dividend income is recorded on the ex-dividend date. Capital gain distributions are included in dividend income. Net appreciation in the fair value of investments consists of realized and unrealized gains and losses on investments.

Risks and Uncertainties

The Plan provides for various investment options in a variety of stocks, mutual funds and other investment securities. Investment securities are exposed to various risks, such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amount reported in the Plan's statement of net assets available for benefits.

Benefit Payments to Participants

Benefits are recorded when paid.

Notes to Financial Statements

	As of December 31, 2004		2003	
Investments, at fair value:				
Common stock	$	399,155	$	266,442
Money Market Fund		7,925		16,828
		407,080		283,270
Investments, at contract value:				
GICS	$	85,406	$	87,426
Investments underlying Synthetic GICs:				
Common/collective trusts, at fair value		280,030		253,792
Synthetic GIC wrappers		(3,601)		(2,852)
Synthetic GICs, net at contract value		276,429		250,940
	$	768,915	$	621,636

Investment income for the Master Trust was as follows (in thousands):

	Year Ended December 31, 2004	
Investment income:		
Net appreciation in fair value of common stock	$	123,927
Interest		15,456
Dividends		5,117
	$	144,500

Common stock is valued at its year-end quoted market value determined from publicly stated price information. The money market fund is stated at fair market value. GICs are valued at contract value, which approximates fair value.

For synthetic GICs, the ownership of the underlying common collective trusts is retained by the Master Trust and is reported at fair value. The synthetic GIC wrappers are valued at the difference between the fair value of the underlying common collective trusts and the contract value of the synthetic GICs. When considered together, the underlying assets of the common collective trusts and the synthetic GIC wrappers are reported at contract value, as participants are guaranteed return of principal and accrued interest.

GICs and synthetic GIC wrappers (Contracts) held by the Master Trust are issued by various banks and insurance companies. All Contracts are fully benefit-responsive and, in accordance with the American Institute of Certified Public Accountants Statement of Position 94-4, *Reporting of Investment Contracts Held by Health and Welfare Benefits Plans and Defined-Contribution Pension Plans*, are recorded at contract value, which approximates fair value. The total return of the Contracts, net of fees, was 4.45% and 4.60% for 2004 and 2003, respectively. The crediting interest rates for the Contracts had a range of 1.93% to 7.05% as of December 31, 2004 and 2.84% to 7.05% as of December 31, 2003. The Contracts had scheduled maturities from April 2005

GICs and synthetic GIC wrappers (Contracts) held by the Master Trust are issued by various banks and insurance companies. All Contracts are fully benefit-responsive and, in accordance with the American Institute of Certified Public Accountants Statement of Position 94-4, *Reporting of Investment Contracts Held by Health and Welfare Benefits Plans and Defined-Contribution Pension Plans*, are recorded at contract value, which approximates fair value. The total return of the Contracts, net of fees, was 4.45% and 4.60% for 2004 and 2003, respectively. The crediting interest rates for the Contracts had a range of 1.93% to 7.05% as of December 31, 2004 and 2.84% to 7.05% as of December 31, 2003. The Contracts had scheduled maturities from April 2005 to September 2009 as of December 31, 2004 and from February 2004 to September 2008 as of December 31, 2003. No valuation reserve was recorded as of December 31, 2004 and 2003.

Net assets, net investment income and gains and losses are allocated to participating plans based on number of units owned.

NOTE 4 – RELATED PARTY TRANSACTIONS

Certain Plan investments are shares of mutual funds managed by the Trustee. The Plan also invests in the common stock of BNSF through the BNSF Common Stock Fund held in the Master Trust. The Master Trust recorded purchases of $117 thousand and sales of $108 thousand of the Company's stock during the year ended December 31, 2004. Transactions in such investments qualify as party-in-interest transactions, which are exempt from the prohibited transaction rules.

Administrative expenses of the Plan, except for certain participant loan fees, are paid by BNSF. For the year ended December 31, 2004, BNSF paid $141 thousand in administrative expenses on behalf of the Plan.

NOTE 5 – INCOME TAX STATUS

The Internal Revenue Service determined and informed BNSF by letter dated August 19, 2003, that the Plan was qualified under IRC Section 401(a). The Plan has subsequently been amended and restated since receiving the determination letter. However, the plan administrator and tax counsel believe the Plan is designed and is currently operating in compliance with the applicable requirements of the IRC.

In accordance with IRC Section 401(k), amounts deducted from participants' salaries as before-tax contributions are not taxable to the participants until withdrawn or distributed. After-tax contributions are not subject to taxation upon withdrawal.

NOTE 6 – SUBSEQUENT EVENTS

Effective January 2005, compensation is defined as a participant's base salary, Incentive Compensation Plan bonus award and sales commissions.

Effective March 2005, immediate lump sum distributions with account balances between $1 thousand and $5 thousand are invested in an Investment Retirement Account for the benefit of the participant, unless the participant directs otherwise, as required by law.

BURLINGTON NORTHERN SANTA FE
INVESTMENT AND RETIREMENT PLAN

SCHEDULE I - SCHEDULE OF ASSETS (HELD AT END OF YEAR)
AS OF DECEMBER 31, 2004
(Dollars in thousands)

EIN 36-2686122

Attachment to Form 5500, Schedule H, Part IV, Line i: Plan # 002

(a)	(b) Identity of Issue, Borrower or Similar Party	(c) Description of Investment, including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	(e) Current Value
*	BNSF 401(k) Plans Master Trust	Investment in Master Trust	$ 443,506
*	Participant loans	Interest of 5.00% - 10.75% with maturities from one month to fifteen years	19,305
*	Vanguard 500 Index Fund	Registered Investment Company	173,531
*	Vanguard Windsor II Fund	Registered Investment Company	74,159
*	Vanguard Wellington Fund	Registered Investment Company	51,715
*	Vanguard International Growth Fund	Registered Investment Company	39,299
*	Vanguard Growth Index Fund	Registered Investment Company	35,805
*	Vanguard Total Bond Market Index Fund	Registered Investment Company	29,200
	Wells Fargo Small Company Growth Fund	Registered Investment Company	53,769
	Total assets held for investment purposes		$ 920,289

* A Party in Interest, as defined by ERISA.

Column (d) is excluded from the presentation, as all investing activity is participant-directed.

SIGNATURES

The Plan. Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

Burlington Northern Santa Fe Investment and Retirement Plan

By: Jeanne Michalski

Jeanne E. Michalski
Vice President of Human Resources and Medical

Date: June 28, 2005

EXHIBITS

Exhibit No.		Page No.
23	Consent of PricewaterhouseCoopers LLP	13

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333-19241) of Burlington Northern Santa Fe Corporation of our report dated June 28, 2005 relating to the financial statements of Burlington Northern Santa Fe Investment and Retirement Plan, which appears in this Form 11-K.

PricewaterhouseCoopers LLP

Fort Worth, Texas
June 29, 2005