NEW MEXICO EDUCATIONAL RETIREMENT BOARD

REAL ASSET INVESTMENT POLICY STATEMENT

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NEW MEXICO EDUCATIONAL RETIREMENT BOARD
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REAL ASSET INVESTMENT POLICY STATEMENT

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1. REAL ASSET INVESTMENT POLICY STATEMENT

1.1. INTRODUCTION

The New Mexico Educational Retirement Board (the "ERB") has authorized an allocation of a portion of its investment portfolio to the asset class of real assets. Real asset investments predominantly include equity, loan, hybrid, or other economic interests in physical assets. This Real Asset Policy Statement (the "Real Asset Policy") sets forth the objectives, investment guidelines, and investment process governing the ERB real asset investment portfolio (the "Real Asset Portfolio"). This Real Asset Policy includes and incorporates any other applicable strategy or policy statements approved by the ERB in the future (collectively, the "Policy Statements"). This Real Asset Policy also sets forth the purpose of the Real Asset Portfolio allocation and the standard of care governing the management of the real asset portfolio. It additionally describes the roles and responsibilities of the ERB, the ERB Investment Committee (the "IC"), the ERB Staff Selection Committee ("SSC"), the ERB's investment staff (the "Staff"), and the ERB's external real asset consultants (the "Consultant" or "Consultants") relating to the oversight and management of the Real Asset Portfolio.

1.2. PURPOSE AND STANDARD OF CARE

The purpose of the ERB's real asset allocation is to accomplish the investment objectives set forth below. These objectives include enhancing the ERB's total portfolio diversification, reducing total portfolio return volatility, and obtaining an attractive return on investment. All real asset investments shall be subject to the prudent investor rule as codified in the New Mexico statutes and shall comply with applicable local, state, and federal laws and regulations.

1.3. INVESTMENT STRATEGY

For purposes of this Real Asset Policy, "real asset" includes but is not limited to: (1) private equity investments including interests in tangible and intangible assets owned through joint ventures and real asset-owning and/or operating entities (e.g., corporations, limited liability companies, and limited partnerships) ("Private Equity"), (2) private debt investments potentially secured by liens on real property and security interests in tangible and intangible assets ("Private Debt"), (3) publicly-listed interests in real asset-owning and/or operating entities ("Public Equity"), and (4) publicly-listed debt real asset investments potentially secured by liens on real property and security interests in tangible and intangible assets ("Public Debt").

The Real Asset Portfolio is designed to provide returns in excess of investment grade bonds with substantially less volatility than equity markets. This portfolio will include investments in infrastructure and natural resources. Infrastructure investments predominantly include equity, loan, hybrid, or other economic interests in assets which enjoy quasi-monopolistic positions, such as transportation, energy, utilities, communications, water, and social infrastructure assets. Natural resource investments predominantly include equity, loan, hybrid, or other economic interests in assets that derive a majority of their value from ownership of physical resources and the associated value-chain such as energy, agriculture, timber, water, mitigation banking, and mining & minerals. Portfolio risk shall be mitigated through an appropriate combination of risk factor, sector, investment type, vintage year, manager, geographic, and revenue profile diversification. Other risk factors, including leverage and liquidity, shall be managed consistent with the investment guidelines set forth in the Policy Statements. Reasonable due diligence is required in selecting investment managers, commingled funds, and co-investments/direct investments, and in making all investment decisions. The Real Asset Policy shall be reviewed at least every 3 years by the Staff and Consultants who shall present any recommended revisions to the IC. The IC will in turn make recommendations to the Board for final approval and adoption.

1.4. OBJECTIVES

The objectives of the Real Asset Portfolio are the following:

- **Portfolio Diversification**. Use real asset investments to enhance the diversification of ERB's total investment portfolio, given the lower return correlations historically of real assets with other asset classes.
- **Capital Preservation**. Protect investment capital through real asset investment activities that are designed to, at a minimum, preserve investment capital.
- **Attractive Returns**. Take advantage of the attractive returns offered by real assets by making investments with expected returns commensurate with their respective risk levels.
- **Portfolio Volatility Reduction**. Reduce ERB's overall return volatility by investing in real assets, which have historically provided a lower return volatility than other asset classes.
- **Inflation Hedge**. Make real asset investments that are likely to have cash flow or return profiles that are correlated with price inflation.
- **Differentiated Investment Opportunities.** Permit ERB to invest in unique opportunities that arise due to dislocations in markets that occur from time-to-time.

1.5. INVESTMENT METHODOLOGY

1.5.1. REAL ASSET PORTFOLIO INVESTMENT AND REVIEW

The Staff, with the approval of the SSC, and with the assistance of the Consultant, shall make investment manager selection decisions that are to remain consistent with the Policy Statements.

The Staff, under the direction of the IC and with the assistance of the Consultant, shall manage and monitor the performance of the Real Asset Portfolio consistent with the Policy Statements. The Policy Statements at a minimum shall be reviewed at least once every 3 years by the Staff and Consultant for consistency with investment objectives, market conditions, and other factors affecting the Real Asset Portfolio.

1.5.2. RISK MANAGEMENT

The Real Asset Portfolio risk management activities, at a minimum, shall include but not be limited to: (1) evaluating the risk/return level of each investment at the time of the investment and at least annually thereafter to classify the investment and portfolio risk/return levels for compliance with the Policy Statements; (2) designating the investment expected returns and reviewing actual performance to determine consistency of return levels given the originally stated expected return, peer performance, and market conditions affecting performance; (3) analyzing portfolio risk factors, including investment type, geographic diversification, and investment structure diversification to determine compliance with risk mitigation guidelines; (4) monitoring other risk factors that cannot be mitigated through diversification, such as leverage and liquidity, to evaluate compliance with risk mitigation guidelines; and (5) conducting portfolio investment, management, and monitoring activities, as described in more detail below in Section 5.3: Roles and Responsibilities.

1.5.3. ACCOUNTING AND REPORTING

The Staff, with the assistance of the Consultant, shall use a portfolio accounting and reporting system that: (1) accurately reports portfolio and investment returns consistent with industry accounting and reporting standards (GIPS compliant), and (2) describes and assesses portfolio risk/return attributes on a timely basis (i.e., at least quarterly). Also, if discrepancies are identified, the Staff and the Consultant shall reconcile ERB internal and/or external records with the Consultant-monitored investment manager reports, including with respect to account balances and returns, to ensure that any variances are reconciled on a timely basis.

1.5.4. INVESTMENT MANAGEMENT SERVICES

ERB Staff will recommend to the SSC for their approval external investment managers, advisors and Consultants upon the Staff's completion of a review of criteria described in Section 5.2 hereof, and will pay reasonable compensation for investment management services for the ERB Real Asset Portfolio. The SSC will refer such decisions to the ERB as informational items only.

2. REAL ASSET PORTFOLIO INVESTMENT GUIDELINES

2.1. ALLOCATION SIZE

Per the December 2020 ERB Investment Policy Statement, the ERB's real asset allocation is targeted to be 9% of ERB assets with a range of 0-16%. The Board acknowledges that the actual weighting to real assets at any given time may vary from the target as market values of the real asset investments and the overall portfolio fluctuate. The Real Asset Portfolio target is long term in nature (i.e., at least five years), and the program size will fluctuate relative to the values of real assets and the other ERB investment asset classes.

The Real Asset Portfolio is subdivided into two distinct sub-portfolios consisting of infrastructure ("Infrastructure Sub-portfolio") and natural resources ("Natural Resources Sub-portfolio"), each defined further in Sections 3: Infrastructure Sub-portfolio Investment Guidelines and 4: Natural Resources Sub-portfolio Investment Guidelines.

TABLE 1: REAL ASSETS AND SUB-PORTFOLIO ALLOCATIONS

Sub-asset Class	Target	Policy Range
Infrastructure	4.0%	0% – 7.5%
Natural Resources	5.0%	0% – 9.0%
Total Real Assets	9.0%	0% – 16.0%

2.2. PERMISSIBLE INVESTMENT STRUCTURES / VEHICLES AND PUBLIC / PRIVATE ALLOCATIONS

Investment Structures. The Real Asset Portfolio may include real asset Private Equity, Private Debt, Public Equity, and Public Debt investments. Private Equity and Private Debt investments shall be comprised of investments in commingled funds, separate accounts or co-investments/direct investments. Public Equity and Public Debt investments shall be comprised of investments in entities such as separate accounts or commingled funds that have investment features consistent with institutional quality real assets, as determined by the Staff and Consultant.

Investment Vehicles. The investment structure and vehicle exposure shall be used to mitigate portfolio risk, including enhancing portfolio liquidity. Table 2 below provides a summary of the advantages and disadvantages of the investment vehicles, which shall be considered by the Staff and Consultant in developing and managing the performance and liquidity of the Real Asset Portfolio.

TABLE 2: CHARACTERISTICS OF INVESTMENT VEHICLES

VEHICLE	ADVANTAGES	DISADVANTAGES	LIQUIDITY

Open-End Fund	○ Ability to potentially invest in a fund that typically already exhibits sector and geographic diversification ○ Lower blind-pool risk (i.e., existing portfolio to evaluate) ○ Existing manager and fund performance record ○ Very long life ○ Can often redeem interest	○ Passive investor ○ Typically cannot influence manager decisions regarding acquisitions, financings, and sales ○ Lack of meaningful manager co-investment ○ Primarily only core strategies	○ Typically a minimum of 90 days unless there is an investor queue. Usually on a best efforts basis to redeem. ○ Interests can be sold (often at a discount) in the secondary market.
Closed-End Fund	○ Ability to target skilled value-add / opportunistic management ○ May have manager organizations and track records to evaluate ○ Manager-investor enhanced alignment of interests including manager or sponsor co-investment. ○ Asset liquidations by end of term of fund	○ Passive investor ○ Typically cannot influence manager decisions regarding acquisitions, financings, and sales ○ Illiquid during the specified term and cannot redeem interest ○ Typically blind pools ○ Potentially short-term hold for long-term assets	○ Typically 10 to 20 year terms. ○ Interests can be sold, often at a discount, in the secondary market.
Separate Account	○ Lower overall fee structure than funds ○ Potential ability to influence decisions regarding acquisitions, financings, and sales ○ Greater ability to invest capital at desired pace ○ Flexibility to target assets in specific sectors or region	○ Less diversification than a portfolio of fund-only investments ○ Access may be limited by investment size ○ Potential conflicts of interest with manager and their other activities	○ For private investments, typically more liquid than fund investments. Depending on investment, may have option to sell to other shareholder(s) or third parties.
Co-Investment/ Direct Investment	○ Lower overall fee structure than funds ○ Potential ability to influence decisions regarding acquisitions, financings, and sales ○ Greater ability to invest capital at desired pace ○ Flexibility to target assets in specific sectors or regions ○ Enhanced liquidity options, as may be more liquid than commingled fund investments ○ Potential to enhance relationships with managers by participating alongside manager	○ Less diversification than a portfolio of fund-only investments ○ Access may be limited by investment size ○ Oftentimes needs a sizeable team with experience in direct investing	○ For private investments, typically more liquid than fund investments. Depending on investment, may have option to sell to other shareholder(s) or third parties.

Open-End Commingled Funds. Open-end fund investments shall be made primarily to provide or complement the portfolio's existing: (1) real asset sector and geographic diversification, (2) exposure to larger assets, and (3) liquidity (i.e., potential to redeem after 90 days). The Staff, with the assistance of the Consultant, shall complete reasonable due diligence in evaluating open-end commingled funds consistent with these objectives and the investment guidelines set forth in Section 5.2: Investment Due Diligence. No investment may be made in any open-end commingled funds with (1) less than $500 million of gross assets, or (2) diversification attributes that are inconsistent with the needs of the Real Asset Portfolio as determined by the Staff with the assistance of the Consultant. Open-end commingled fund vehicles may include, but are not limited to partnerships, group trusts, limited liability companies, single purpose corporations, or other vehicles that are determined by the Staff, with the Consultant's assistance, to be consistent with the Policy Statements.

Closed-End Commingled Funds. Closed-end fund investments shall be made primarily to obtain exposure to reasonably diversified portfolios of core, core-plus, value and opportunistic investments. The Staff, with the Consultant's assistance, shall complete reasonable due diligence in selecting closed-end fund investments, as further set forth in Section 5.2: Investment Due Diligence. Co-investment by the manager of a fund is preferred. Investment in commingled funds may take place through primary or secondary commingled fund investments:

- Primary Commingled Investment: Investment typically takes place prior to the termination of a given fund's initial fundraising process. Investor capital is committed and invested at par value.
- Secondary Commingled Investment: Traditionally investment coincides following the conclusion of the fund's initial fundraising process and is a transaction where the investor is buying out an existing investor of the fund, or participating in the recapitalization of the fund. The purchase of these interests may be at a premium, discount or at par value.

Separate Accounts. Separate accounts shall be structured primarily to provide diversification to the overall portfolio, target niche strategies not obtained or less present in the overall portfolio, and to provide greater Real Asset Portfolio liquidity. The Staff, with the Consultant's assistance, shall complete reasonable due diligence in selecting managers that manage separate accounts, as further set forth in Section 5.2: Investment Due Diligence. Separate accounts may include Private Equity, Private Debt, Public Equity, or Public Debt in vehicles such as limited liability companies, limited partnerships, special purpose corporations, or other vehicles that are determined by the Staff, with the Consultant's assistance, to be consistent with the Policy Statements.

Co-Investments/ Direct Investments. Co-investments / Direct Investments shall be made primarily through specially formed entities to obtain exposure to unique opportunities in specified, singular assets or a portfolio of assets. Co-investments offer reduced fees relative to other structures and added visibility to the investor. The manager of the co-investment portfolio shall complete reasonable due diligence in selecting co-investments/direct investments, as further set forth in Section 5.2: Investment Due Diligence.

2.3. RISK FACTORS

Leverage. Leverage is a significant risk factor. Its importance is magnified during an economic downturn when decreasing asset values and stricter lending terms can lead to unexpected increased leverage levels. It may also be the case that the leverage level increases unduly as market conditions become better. Accordingly, the Staff and Consultants will monitor closely the leverage level of the Infrastructure and Natural Resource Sub-portfolios.

It is highlighted that oftentimes, ERB will not have control or influence over the level of leverage ultimately used by managers and/or co-investment/direct investment partners. However, Staff and the Consultant will perform sufficient due diligence on each investment opportunity with respect to leverage levels.

Investor Control. Table 3 describes the three levels of investor control.

TABLE 3: DEFINITIONS OF INVESTMENT CONTROL
Total Control. The Staff with the Consultant's assistance has the sole discretion to replace management and/or the ability to sell, refinance, or dispose of assets.
Limited Control. For example, investments, such as in commingled funds or co-investments/direct investments, in which the ERB has minority or significant minority interests providing governance rights and positions, such as an advisory board or board member position. Also, to a lesser degree, investments with control over exit (e.g., in open-end funds with redemption rights, or public infrastructure securities that provide reasonable liquidity).
Passive. Investments in (e.g., closed-end vehicles) providing no exit until the manager elects to dispose of investments, consistent with investment term, and no control or influence over the underlying investments.

Control is materially defined through the ERB's ability to influence or exit an investment. To the extent possible and reasonable, investments will be made that maximize ERB's rights with respect to that investment.

Liquidity. The Staff, with the assistance of the Consultant, shall regularly review the liquidity of the portfolio. The Real Asset Portfolio is intended to be primarily illiquid. Private markets investments, which are illiquid, often demand higher returns given the lack of liquidity. Therefore, the illiquid investments should demand a higher return than liquid investments in the Real Asset Portfolio. Table 4 below shows examples of different kinds of infrastructure by liquidity group.

TABLE 4: DEFINITIONS OF LIQUIDITY	Investment Type
LIQUID (i.e., can liquidate within 30 days – public securities)	Public Equity and Public Debt
MODERATE LIQUIDITY (i.e., investor redemption possible after one quarter, including open-end equity and debt commingled funds)	Co-Investments, Direct Investments, and Open-End Funds
ILLIQUID (i.e., closed-end fund structure not providing any liquidity until fund termination and liquidation)	Co-Investments, Direct Investments, and Closed-End Funds

Valuation Risk. Valuation policies vary from manager to manager and the lack of consistently applied mark to market mechanisms across funds/managers can impact reported portfolio performance.

Manager Risk. The success of real asset investments is often highly dependent on manager skill and timing.

Market Risk. Market risk, including unexpected changes in the overall economy, an increase in competitive supply of new producers, competing products, and a change in real asset demand patterns due to an economic slowdown or other factor reducing demand for their products.

Capital. Real assets are a capital-intensive asset class. Unexpected capital events, including repairs, may significantly impact returns.

Obsolescence. Certain real asset products or production locations can become less desirable over time leading to decreases in value.

Capital market shifts. A change in capitalization rates due to, for example, an unexpected rise in interest rates or changes in currency exchange rates, may have a negative impact on real asset values.

2.4. BENCHMARK

The Real Asset Portfolio's and sub-portfolio benchmark shall be the All Urban Consumer Price Index for the United States (CPI-U) + 4%.

The Real Asset Portfolio's performance shall be assessed on a quarterly basis against the performance of the benchmark. The performance against the benchmark shall be evaluated in light of real asset investments being long-term investments and it may take several years for returns to reflect performance given, for example, the "J-curve effect." Given the long-term nature of the asset class, performance evaluation should be performed over a market cycle or rolling five-year periods.

2.5. VALUATION POLICY

The Staff shall prefer fund investments that have adopted and adhere to a valuation policy that is consistent with industry best practices and prevailing accounting standards. On an internal basis, funds shall be valued at least annually.

The Staff, with the Consultants' assistance, shall strive to participate in real asset investments that align investor and manager interests by addressing potential conflicts associated with issues pertaining to market valuations. This can be accomplished by establishing asset management fee structures that are calculated based on factors not associated with market value estimates. In addition, the Staff shall attempt, when reasonably possible, to negotiate terms allowing the Staff and/or Consultant to challenge value estimates that are used in the payment of incentive-based performance fees.

3. INFRASTRUCTURE SUB-PORTFOLIO INVESTMENT GUIDELINES

3.1. INVESTMENT STRATEGY

Infrastructure investments predominantly include equity, loan, hybrid, or other economic interests in assets which enjoy quasi-monopolistic positions, such as transportation, energy, utilities, communications, water, and social infrastructure assets. For purposes of this investment policy, "infrastructure" includes but is not limited to: (1) private equity infrastructure investments including interests owned through joint ventures and infrastructure-owning and/or operating entities (e.g., corporations, limited liability companies, and limited partnerships) ("Private Equity"), (2) private debt infrastructure investments potentially secured by liens on real property and security interests in tangible and intangible assets ("Private Debt"), (3) publicly-listed interests in infrastructure-owning and/or operating entities ("Public Equity"), and (4) publicly-listed debt infrastructure investments potentially secured by liens on real property and security interests in tangible and intangible assets ("Public Debt").

The Infrastructure Sub-portfolio is designed to achieve a core-plus level of return through investments providing both income returns and capital appreciation returns. Portfolio risk shall be mitigated through appropriate risk factor diversification, including infrastructure sector diversification, geographic diversification, and revenue profile diversification. Other risk factors, including leverage and liquidity, shall be managed consistent with the investment guidelines set forth in the Policy Statements.

3.2. INVESTMENT GUIDELINES

The investments of the Infrastructure Sub-portfolio shall be consistent with the following guidelines:

3.2.1. ALLOCATION SIZE

As of the fourth quarter of 2020, the ERB's real asset allocation size is targeted to be 9% of ERB assets. Infrastructure is part of NMERB's real asset allocation with a target of 4.0% and a policy range of 0-7.5%. The Board acknowledges that the actual weighting to infrastructure at any given time may vary from the target as market values of both the infrastructure investments and the overall portfolio fluctuate. The Infrastructure Sub-portfolio target is long term in nature (i.e., at least five years), and the program size will fluctuate according to the relative values among infrastructure and the other ERB investment asset classes.

3.2.2. INVESTMENT STRUCTURES / VEHICLES AND PUBLIC / PRIVATE ALLOCATIONS

Investment Structures. As defined in Section 2.2, Infrastructure Sub-portfolio may include infrastructure Private Equity, Private Debt, Public Equity, and Public Debt investments. Private Equity and Private Debt investments shall be comprised of investments in commingled funds or co-investments/direct investments. Public Equity and Public Debt investments shall be comprised of investments in entities such as separate accounts or commingled funds that have investment features consistent with institutional quality infrastructure, as determined by the Staff and Consultant. Table 5 below sets forth the guidelines governing the Infrastructure Sub-portfolio's investment structure. The Board acknowledges that the actual investment structures and investment vehicles of the Infrastructure Sub-portfolio at any given time may vary from the policy range targets due to the pacing of investments and market value fluctuations.

TABLE 5: INFRASTRUCTURE INVESTMENT STRUCTURE POLICY RANGES

Investment Structure	Policy Range
Private Equity	40% – 100%
Private Debt	0% – 60%
Public Equity	0% – 30%
Public Debt	0% – 20%

The Staff, with the Consultant's assistance, shall establish policy range targets with respect to investment structure, which targets shall be adjusted on an annual basis and reflected in the Infrastructure Sub-portfolio quarterly performance reports. Each of the diversification parameters in Table 5 will be calculated on a portfolio basis and include exposure through various investment vehicles.

3.2.3. EXPECTED INVESTMENT AND PORTFOLIO RISK / RETURNS

The risk/return categories utilized to classify investment risk/return levels are the following:

Core. Equity or debt investment in operating, institutional quality infrastructure assets that often have regulated or long-term contractual cash flows. Gross returns are typically targeted to be in the 6% – 9% range and are typically comprised of greater levels of income return, with appreciation matching or exceeding inflation. Core assets are typically regulated or are supported by long-term contractual revenues.

Core-Plus. Core-plus assets assume slightly more revenue risk and are typically comprised of slightly greater levels of asset appreciation than core assets. Gross returns are typically targeted to be in the 9% – 12% range with a significant part of the return coming from income. Revenues of core-plus assets may be linked to GDP or economic growth, but oftentimes exhibit monopolistic or quasi-monopolistic characteristics.

Value. Equity or debt investment in assets requiring redevelopment, development, lease-up, or slight rehabilitation/repositioning. Gross returns are typically targeted to be in the 12%-15% range. Investment may also include higher risk assets than core or core-plus investments and may contain greater risk as economic activity fluctuates. Value investments typically are expected to generate returns greater than core or core-plus assets through the stabilization of an asset, which increases the end value by increasing income and, in many cases, increasing the earnings multiple used in selling the asset due to the reduced asset risk resulting from stabilization. Value returns are typically more dependent than core and core-plus on appreciation returns with less return from income.

Opportunistic. Equity or debt investment in infrastructure assets, operating companies, and other investment vehicles involving significant investment risk. Risk may include, for example, development, financial structuring, or revenue risk (e.g., exposure to commodity prices). Gross returns targeted to be in the 15% or higher range. Opportunistic returns typically have lower income returns than value and in many cases are originated with minimal income in place.

Table 6 sets forth the risk/return policy ranges for the Infrastructure Sub-portfolio.

TABLE 6: INVESTMENT AND PORTFOLIO RISK/RETURN RANGES

Risk/Return	Expected Nominal Return (Gross)	Expected Nominal Return (Net)	Return Volatility	Policy Range
Core	6% – 9%	5% – 8%	Low	0% – 100%
Core-Plus	9% – 12%	8% – 11%	Moderate	20% – 100%
Value	12% – 15%	10% – 12%	Moderate-High	0% – 50%
Opportunistic	15%+	12%+	High	0% – 30%

The Staff, with the Consultant's assistance, shall establish policy range targets with respect to risk/return exposures. The targets shall be adjusted on an annual basis and reflected in the Infrastructure Sub-portfolio quarterly performance reports. Each of the diversification parameters in Table 6 will be calculated on a portfolio basis and include exposure, directly and indirectly, through various investment vehicles.

Return Volatility. The investment risk/return exposure is further defined by return volatility. The return volatility guidelines are loosely defined due to lack of available, credible information with respect to private investments. The lack of relevant information is due largely to the fact that private equity infrastructure investments are typically valued through appraisals completed annually or less frequently, which may often rely upon a discounted cash flow methodology or "comparable" assets that may be markedly different from the underlying asset being appraised. Due to this and other factors, private equity returns are less volatile than public equity infrastructure returns, which are based on daily market valuations and are therefore susceptible to general market volatility. Value and opportunistic return volatilities are estimated to be greater, given the risk category and the increasing levels of appreciation of returns required.

3.2.4. INCOME AND APPRECIATION RETURN MIX

Infrastructure investments, depending on their risk/return level (i.e., core, core-plus, value, opportunistic), may offer varying proportions of expected income/cash yield and appreciation returns. Investments providing higher income/cash yield returns typically will be preferred among investments of comparable expected total returns, since income/cash yield returns provide greater return certainty and therefore lower risk. Also, investments providing preferred or senior income/cash yield returns typically will be preferred among investments providing comparable returns, since such features enhance the certainty of return. Core and core-plus investments have historically provided higher income returns, which equates to greater certainty of return and lower risk.

3.2.5. DIVERSIFICATION AND RISK MANAGEMENT

The Infrastructure Sub-portfolio's diversification is important in reducing portfolio risk and accomplishing superior risk-adjusted returns. The impact of investments on portfolio diversification, portfolio risk, and risk-adjusted returns shall be considered when evaluating prospective investments. Additionally, the Infrastructure Sub-portfolio may have over-weighted exposure in select sectors, geographies, investment vehicles, risk categories, etc. as desired by the Staff based on recommendations of the Consultant. The Board acknowledges that the actual investment diversification parameters of the Infrastructure Sub-portfolio at any given time may vary from the policy range targets due to the pacing of investments and market value fluctuations.

Sector. Sector diversification is one of the most important diversification features in terms of impact on returns. The sectors have historically performed differently during economic cycles. For example, regulated assets typically perform better than economically-sensitive assets during economic downturns.

Diversification ranges are based on the universe of available infrastructure investments and institutional investor portfolio information. Table 7 provides a guideline range with respect to the Infrastructure Sub-portfolio sector diversification. Exposure to various sectors may be achieved through sector-specific funds, provided that the policy ranges are not exceeded.

TABLE 7: SECTOR DIVERSIFICATION RANGES

Infrastructure Sector	Policy Range
Transportation	0% – 60%
Energy	0% – 60%
Utilities	0% – 60%
Social	0% – 60%
Other	0% – 40%

The Staff, with the Consultant's assistance, shall establish policy range targets with respect to sector exposures. The targets shall be adjusted on an annual basis and reflected in the Infrastructure Sub-portfolio quarterly performance reports. Each of the diversification parameters in Table 7 will be calculated on a portfolio basis and including exposure, directly and indirectly, through various investment vehicles.

Geography. The importance of location to the long-term value of infrastructure is based on the economic fundamentals and the other risk attributes (e.g., rule of law, governmental impact, or regulatory impact) of global regions. Distribution of infrastructure investments by geographic region shall be monitored for compliance with the broad ranges set forth in Table 8 below. Exposure to various geographies may be achieved through regional or country-specific funds, provided that the policy ranges are not exceeded.

TABLE 8: GEOGRAPHICAL DIVERSIFICATION RANGES

Geographies	Policy Range
United States	0% – 100%
Western Europe	0% – 70%
Australia / New Zealand	0% – 50%
Other OECD Countries	0% – 50%

Non-OECD Countries	0% – 20%

The Staff, with the Consultant's assistance, shall establish policy range targets with respect to regional exposures. The targets shall be adjusted on an annual basis and reflected in the Infrastructure Sub-portfolio quarterly performance reports. Each of the diversification parameters in Table 8 will be calculated on a portfolio basis and include exposure, directly and indirectly, through various investment vehicles.

Other. In addition to sector and geographical diversification, there are other infrastructure factors, the portfolio risk impact of which may be reduced through diversification. These portfolio factors may include, but are not limited to, the following:

- **Investment Structure**. Equity, preferred equity, first lien debt, or mezzanine debt.
- **Life Cycle**. Brownfield assets are preferred to greenfield assets, given the stabilized nature of mature infrastructure assets and their return characteristics.
  - **Greenfield Assets**. Greenfield infrastructure assets are those assets that are in the development phase (e.g., permitting, engineering etc.), or the construction phase. Greenfield assets have little or no operating history.
  - **Brownfield Assets**. Brownfield infrastructure assets are those assets that have a history of operations upon which investors can rely.
- **Revenue Profile**. The nature of the underlying revenues of infrastructure assets can dictate the risk of the investment. Underlying revenues can be categorized as regulated, contracted, demand-based, and other.
  - **Regulated**. Regulated revenues are typically set by a regulator who takes into account costs incurred by a company and an appropriate cost of capital.
  - **Contracted.** Contracted revenues are typically set on commercial terms between the infrastructure company and a customer.
  - **Demand-Based**. Demand-based revenues are typically linked to GDP or economic growth.

While no formal diversification ranges are set forth for the above portfolio risk factors, they and other factors may be monitored in assessing overall portfolio risk and expected return. As part of these risk assessment activities, the Staff and Consultant will classify each Infrastructure Sub-portfolio investment by risk and expected return level and determine whether portfolio risk and expected return levels are consistent with the return objectives and guidelines set forth in the Policy Statements. This analysis will be done at the time each investment allocation is made and at least annually thereafter.

3.2.6. BENCHMARK

The Infrastructure Sub-portfolio's performance shall be assessed on a quarterly basis against the performance of the benchmark. The performance against the benchmark shall be evaluated in light of infrastructure investments being long-term investments that can only be reliably measured over the life of the partnership (typically 10+ years) or a complete market cycle. Infrastructure fund holdings are typically marked to market, however, the valuation methodology used by one general partner may differ significantly from the valuation methodology used by another. In addition, the time-weighted-return performance in the first few years of a partnership's life is routinely negative due to the "J-curve effect."

4. NATURAL RESOURCES SUB-PORTFOLIO INVESTMENT GUIDELINES

4.1. INVESTMENT STRATEGY

Natural resource investments predominantly include equity, loan, hybrid, or other economic interests in assets that derive a majority of their value from ownership of physical resources and the associated value-chain such as energy, agriculture, timber, water, mitigation banking, and mining & minerals. For purposes of this investment policy, "natural resources" includes but is not limited to: (1) private equity natural resource investments including interests owned through joint ventures and natural resource-owning and/or operating entities (e.g., corporations, limited liability companies, and limited partnerships) ("Private Equity"), (2) private debt natural resource investments potentially secured by liens on real property and security interests in tangible and intangible assets ("Private Debt"), (3) publicly-listed interests in natural resource-owning and/or operating entities ("Public Equity"), and (4) publicly-listed debt natural resource investments potentially secured by liens on real property and security interests in tangible and intangible assets ("Public Debt").

The Natural Resources Sub-portfolio is designed to achieve a return in excess of its benchmark, as defined in Section 4.3.7: Benchmark, through investments providing both income and capital appreciation returns. Portfolio risk shall be mitigated through appropriate risk factor diversification, including natural resource sector, geography, fund, manager and vintage year diversification. Other risk factors, including leverage and liquidity, shall be managed consistent with the investment guidelines set forth in the Policy Statements.

4.2. INVESTMENT GUIDELINES

The investments of the Natural Resources Sub-portfolio shall be consistent with the following guidelines:

4.2.1. ALLOCATION SIZE

As of the fourth quarter of 2020, the ERB's real asset allocation size is targeted to be 9% of ERB assets. Natural Resources are part of NMERB's real asset allocation with a target of 5.0% and a policy range of 0-9.0%. The Board acknowledges that the actual weighting to natural resources at any given time may vary from the target as market values of both the natural resource investments and the overall portfolio fluctuate. The Natural Resources Sub-portfolio target is long term in nature (i.e., at least five years), and the program size will fluctuate according to the relative values among natural resources and the other ERB investment asset classes.

4.2.2. INVESTMENT STRUCTURES / VEHICLES AND PUBLIC / PRIVATE ALLOCATIONS

The Natural Resources Sub-portfolio may include natural resource Private Equity, Private Debt, Public Equity, and Public Debt investments. Private Equity and Private Debt investments shall be comprised of investments in commingled funds or co-investments/direct investments. Public Equity and Public Debt investments shall be comprised of investments in entities such as separate accounts or commingled funds that have investment features consistent with institutional quality natural resources, as determined by the Staff and Consultant.

While no formal ranges are set forth for the above investment structures, they and other factors may be monitored in assessing the overall portfolio risk and expected return. This analysis will be done at the time each investment allocation is made and at least annually thereafter.

4.2.3. INVESTMENT ALTERNATIVES

ERB's allocation to natural resources will be diversified among a variety of private market investment types in order to reduce the volatility of natural resources returns and the risk of loss of capital. The following are general guidelines for diversification of the natural resource portfolio:

ERB has divided the global natural resources investment universe into the following sectors, with descriptive attributes to follow:

Timberland

- Operating properties for the production of trees used in the forest products industry, i.e. pulp, chip-n-saw timber, and fuel.
- Generally have institutional qualities for size, physical attributes and location.
- Target unleveraged total real returns of 6.0% or more per year, gross of fees, with a proportion of the total return to be generated from current income and a portion of the total return generated from appreciation.
- Timberland may include some converting or transport facilities when the cash flow or appreciation characteristics are similar.
- Leverage for Timberland investments is generally up to 40% loan-to-value.

Agriculture

- Traditional agriculture, as well as related agriculture value-chain industries.
- Strategies may have a component of value underpinned by farmland, pastureland and/or fixed assets.
- Strategies focused on farmland will include permanent and annual crops.
- Target unleveraged gross-of-fee total returns for farmland and pastureland investments are 6% real.
- Target gross-of-fee total returns for agriculture value-chain investments are 8% nominal or greater.

Mitigation Banking

- Real estate developers are required to offset or mitigate the environmental impacts of their new development projects. Mitigation Banking is a transaction in which an environmental habitat is created or restored. This activity generates impact credits issued by regulatory agencies. To satisfy mitigation requirements, the real estate developer then purchases the credits from the Mitigation Bank.
- The Banks can be in various stages such as existing and permitted, under construction, or planning.
- Target gross-of-fee total returns for Mitigation Banking investments are 10% real.

Energy

- Target investments may include companies and/or properties involved in the exploration, production, gathering, transmission or distribution of oil and gas reserves.
- Strategies will generally be resource based, with identifiable asset exposure where the returns are driven by resource price exposure and manager operating expertise.
- Target gross of fee total returns for Energy investments are 14% or greater.

Minerals & Mining

- Target investments may include companies and/or properties involved in the exploration, production and processing of mineral reserves.
- Strategies will generally focus on base, industrial, bulk and precious metals, with some exposure to rare earth and other minor occurrence minerals.
- Target gross of fee total returns for Minerals & Mining investments are 18% or greater.

Water

- Target investments may include funds and/or companies involved in the acquisition of water associated lands and water rights.
- Strategies will generally be to acquire ranchland and/or irrigated farmland with potential for income or appreciation. Other strategies may include the acquisition of water rights.

- Target gross of fee total returns for Water investments are 10% or greater.

4.2.4. DIVERSIFICATION AND RISK MANAGEMENT

The Natural Resources Sub-portfolio's diversification is important in reducing portfolio risk and accomplishing superior risk-adjusted returns. The impact of investments on portfolio diversification, portfolio risk, and risk-adjusted returns shall be considered when evaluating prospective investments. In order to capitalize on the inefficiencies and the private market nature of natural resource investments, these policies establish ranges for property type exposure, rather than specific targets. As such, the Natural Resources Sub-portfolio may have over-weighted exposure in select sectors, geographies, investment vehicles, risk categories, etc. as desired by the Staff based on recommendations of the Consultant. ERB's intent is to adhere to these diversification guidelines for investment type (timberland, agriculture, mitigation banks, energy, water, and minerals & mining) or location exposure while simultaneously not forcing investments in areas where the risk adjusted returns are not attractive. The Board acknowledges that the actual investment diversification parameters of the Natural Resources Sub-portfolio at any given time may vary from the policy range targets due to the pacing of investments and market value fluctuations. Furthermore, ERB acknowledges during the period of time when the Natural Resources Sub-portfolio is being established, and during times when managers may simultaneously decide to increase or lighten exposure, that investments within these diversification ranges can in the short term be inconsistent with the policy ranges. In the event of such circumstances, ERB Staff and the natural resources Consultant will endeavor to reallocate capital to rebalance the Natural Resources Sub-portfolio over a 12 to 24 month period of time.

Sector. Sector diversification is one of the most important diversification features in terms of impact on returns. The sectors have historically performed differently during economic cycles.

Diversification ranges are based on the universe of available natural resource investments and institutional investor portfolio information. Table 9 provides a guideline range with respect to the Natural Resources Sub-portfolio sector diversification. Exposure to various sectors may be achieved through sector-specific funds, provided that the policy ranges are not exceeded.

TABLE 9: SECTOR DIVERSIFICATION RANGES

Natural Resource Sector	Policy Range
Timberland	0% – 60%
Agriculture	0% – 50%
Mitigation Banks	0% – 30%
Energy	0% – 50%
Minerals & Mining	0% – 20%
Water	0% – 30%

The Staff, with the Consultant's assistance, shall establish policy range targets with respect to sector exposures. The targets shall be adjusted on an annual basis and reflected in the Natural Resources Sub-portfolio quarterly performance reports. Each of the diversification parameters in Table 9 will be calculated on a portfolio basis and including exposure, directly and indirectly, through various investment vehicles.

Geography. The importance of location to the long-term value of natural resource investments is based on the economic fundamentals and the other risk attributes (e.g., rule of law, governmental impact, or regulatory impact) of global regions. Distribution of natural resource investments by geographic region shall be monitored for compliance with the broad ranges set forth in Table 10 below. Exposure to various geographies may be achieved through regional or country-specific funds, provided that the policy ranges are not exceeded.

TABLE 10: GEOGRAPHICAL DIVERSIFICATION RANGES	
Geographies	**Policy Range**
United States	0% – 100%
Non-United States	0% – 30%

The Staff, with the Consultant's assistance, shall establish policy range targets with respect to regional exposures. The targets shall be adjusted on an annual basis and reflected in the Natural Resources Sub-portfolio quarterly performance reports. Each of the diversification parameters in Table 10 will be calculated on a portfolio basis and include exposure, directly and indirectly, through various investment vehicles.

Investment Manager Diversification. The ERB shall utilize various investment managers within the Natural Resources Sub-portfolio. ERB will limit the amount invested with one manager to no more than thirty percent (30%) of the total allocation for natural resources investments. If one manager manages a combination of investments in the natural resources property-type allocations (e.g., timber and mitigation banking or agriculture and timber), the limit will be increased to forty-percent (40%) of the total natural resources allocation.

Fund Diversification. The maximum investment size for any single allocation to a diversified commingled fund shall be limited to twenty-five percent (25%) of the total natural resources allocation. Any one property acquired by a commingled fund manager as part of a fund should generally be no greater than 25% of the manager's portfolio (subordinate to the investment guidelines of the fund). Non-diversified direct investments in a single property shall be limited to 10% of the total natural resources allocation.

Vintage Year Diversification. ERB shall seek to invest in each vintage year to avoid excessive exposure to any one natural resources cycle. While no formal diversification ranges are set forth, they and other factors may be monitored in assessing overall portfolio risk and expected return. This analysis will be done at the time each investment allocation is made to ensure adequate diversification is maintained across vintage years.

4.2.5. BENCHMARK

The Natural Resources Sub-portfolio's performance shall be assessed on a quarterly basis against the performance of the benchmark. The performance against the benchmark shall be evaluated in light of natural resource investments being long-term investments that can only be reliably measured over the life of the partnership (typically 10+ years) or a complete market cycle. Natural resource fund holdings are typically marked to market, however, the valuation methodology used by one general partner may differ significantly from the valuation methodology used by another. In addition, the time-weighted-return performance in the first few years of a partnership's life is routinely negative due to the "J-curve effect."

4.2.6. NATURAL RESOURCE RISK FACTORS

In addition to the real asset risk factors detailed in Section 2.3: Risk Factors, as with other types of investments, natural resource investments include the risk of loss of capital on any individual investment. Key risk considerations specific to natural resource investments include:

Weather risks. Since the production of natural resources is often dependent upon and exposed to varying weather conditions, annual production quantity, quality, and cost can be affected in negative ways. Multi-year results are often less volatile than single year results.

5. PERFORMANCE MEASUREMENT, INVESTMENT DUE DILIGENCE, AND ROLES & RESPONSIBILITIES

5.1. PERFORMANCE MEASUREMENT

The Consultants shall provide to the Staff and IC quarterly performance measurement reports, which reasonably describe the performance of the Real Asset Portfolio. Returns shown shall be calculated in compliance with industry standards and compared to the benchmarks outlined in Section 2.4. Returns shall be provided in compliance with Global Investment Performance Standards ("GIPS"). The Consultant shall present to the IC on, at a minimum, semi-annual basis a combined portfolio level return summary, including quarterly, one-year, three-year, five-year and since inception time-weighted returns. The benchmark established for the portfolio and investments shall be compared in the quarterly reports to actual performance with a focus on performance variances. Dollar-weighted internal rates of return shall also be provided for each investment. Quarterly reports shall monitor each of the investment guidelines described herein to evaluate compliance with portfolio guidelines.

5.2. INVESTMENT DUE DILIGENCE

As part of the risk mitigation efforts previously outlined, new investments shall be made only after reasonable due diligence is completed.

Due diligence regarding all real asset investments shall be completed by the Staff with the assistance of the Consultant, and at a minimum shall include, but not be limited to, the following:

- Review the investment in light of comparable or similar opportunities in the market;
- Review the firm organization, including the professionals, staff and office locations;
- Review the financial condition of the firm, including the financial strength and motivations of significant investors, including review of existing investors in commingled funds or assets;
- Review the business backgrounds of key personnel to evaluate competence and expertise;
- Review the turnover of personnel and the succession of leadership within the organization;
- Review whether any other items may affect the organization (e.g., sale, merger, or litigation);
- Evaluate the research capabilities of the firm and whether research is incorporated into investment and management activities;
- Analyze past investment manager returns and performance, specifically including the fund under consideration or preceding funds with comparable investment strategies;
- Evaluate investment manager principals, senior and key firm personnel, and proposed team members of the fund;
- Assess the reasonableness of the proposed investment strategy given current market conditions;
- Evaluate the firm's ability to source new investments and the reasonableness of the proposed cost of such activities;
- Evaluate the reasonableness of the fund fee structure, in terms of the amount and alignment of investor and manager interests;
- Determine whether any conflicts of interest exist that may unacceptably affect investment performance; and
- Review whether the commingled fund will compete within the firm for new investments and, if so, whether the process for allocating new investments is reasonable and acceptable.

The due diligence process with respect to investments shall be regularly reviewed and revised, as determined necessary, by the Staff and Consultant.

5.3. ROLES AND RESPONSIBILITIES

The roles and responsibilities with respect to the Real Asset Portfolio are summarized in the table below.

ERB ROLES AND RESPONSIBILITIES
▪ Approve the Real Asset Investment Policy, as prepared and recommended by IC, Staff and Consultants.
INVESTMENT COMMITTEE ROLES AND RESPONSIBILITIES
▪ Approve the Real Asset Investment Policy, as prepared and recommended by Staff and Consultant, and refer to full board for its approval. ▪ Monitor the performance of the overall Real Asset Portfolio.
STAFF SELECTION COMMITTEE ROLES & RESPONSIBILITIES
▪ Review and approve external investment managers and investment consultants. Staff will share summaries of the SSC meetings with the ERB in writing or verbally, depending upon the timing of ERB meetings.
STAFF ROLES AND RESPONSIBILITIES
▪ Review and update, with the assistance of the Consultant, the Real Asset Investment Policy. ▪ Review and approve the investment evaluations and/or plans developed by the Consultant with respect to each Real Asset Portfolio investment. ▪ Review and approve each Real Asset Portfolio investment for consistency with the appropriate policy and for general reasonableness. ▪ Review each Real Asset Portfolio investment redemption or liquidation for consistency with the appropriate policy and for general reasonableness. Meet with the Consultant at least annually to update and, if necessary, to make revision recommendations regarding the Policy Statements. ▪ Monitor, with the assistance of the Consultant, the Real Asset Portfolio's performance. ▪ Represent the ERB with respect to all matters related to real asset investments. ▪ Select, with the assistance of the Consultant, reasonably qualified investment managers/advisors for commingled fund investments, ▪ Select investment managers/advisors, as described in Section 5.2: Investment Due Diligence. ▪ Approve the performance measurement report format prepared by the Consultants. ▪ Select and use the Consultant to provide performance measurement reports consistent with industry standards and that enable quarterly review of investment guidelines and benchmarks.
REAL ASSET CONSULTANT ROLES AND RESPONSIBILITIES
▪ Assist Staff in preparing the Real Asset Investment Policy. Review Policy Statements annually and recommend revisions when appropriate. ▪ Prepare recommendations, if requested by the Staff, concerning each investment opportunity. The consultant's recommendation shall include ERB required disclosures of all placement agents or third-party marketing agents and political contributions related to each investment. ▪ Review consistency with the Policy Statements and general reasonableness. ▪ Prior to presentations to the SSC, provide a review of key terms included in the agreements and/or memoranda associated with the prospective investment.

- Prepare recommendations, if requested by the Staff, concerning ongoing portfolio decisions (e.g. LPA amendments) and ensure consistency with the Policy Statements and for general reasonableness. Meet with the Staff at least annually to update and, if necessary, to make revision recommendations to IC and ERB.
- Assist the Staff, as its fiduciary, in the monitoring and management of the Real Asset Portfolio.
- Assist the Staff, to the extent requested, in representing the ERB with respect to all matters related to the Real Asset Portfolio.
- Present to the Staff, as requested, reasonably qualified investment managers for review, including all relevant due diligence information. Assist the Staff, to the extent requested, in completing investment due diligence.
- Provide performance measurement reports consistent with industry standards and that enable quarterly review of investment guidelines and benchmarks and otherwise in the format requested by the Staff and/or the ERB.
- In connection with the real asset quarterly performance report, notify the Staff of situations involving the Real Asset Portfolio's actual investments deviating from the investment guidelines established in the Policy Statements.

6. APPENDIX

6.1. CONTRACT EXECUTION

After legal review of all appropriate investment documents, the following will have contract execution authority as follows:

	Chief Investment Officer	Executive Director	Deputy Executive Director	Investment Officer, Real Assets
Fund Subscription Documents	✓	✓	✓	
Side Letters	✓	✓	✓	
Fund Amending Documents	✓	✓	✓	✓
Other	✓	✓	✓	✓