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I OBJECTIVES

Mission

The Mission of the Alaska Permanent Fund Corporation (“Corporation” or “APFC”) is to manage and invest the assets of the Alaska Permanent Fund (“Fund”) and other funds designated by law.

Vision and Values

APFC’s vision is to deliver sustained, compelling investment returns as the United States’ leading sovereign endowment manager, benefiting all current and future generations of Alaskans.

To fulfill its mission and vision, the Corporation will adhere to the following values:

- **Integrity**: We act in an honorable, respectful, professional manner that continually earns and justifies the trust and confidence of each other and those we serve.
- **Stewardship**: We are committed to wisely investing and protecting the assets, resources, and information with which we have been entrusted.
- **Passion**: We are driven to excellence through self-improvement, innovative solutions, and an open, creative culture; and are energized by the challenges and rewards of serving Alaskans.
II TOTAL FUND & PORTFOLIO DESIGN PHILOSOPHY

A. Purpose

The purpose of this Investment Policy & Procedures Statement ("Policy & Procedures") is to provide a formal plan for investing and managing the assets of the Alaska Permanent Fund and other state assets as prescribed by law to achieve the defined investment objectives consistent with the APFC Mission adopted by the Board. The Policy & Procedures also define the roles and responsibilities of the various parties involved in the investment process and facilitates external communication of investment policy. The appendices to the Policy & Procedures are incorporated into and form part of this document. Terms that are not defined within the body of the Policy & Procedures have meanings assigned to them in the “Glossary,” Appendix C of this document.

This document is not intended to be a static, one-time document and will be considered for possible amendment on an annual basis or any time the Board of Trustees (“Board”) modifies or adds to the Corporation’s investment-related policies and practices. Amendment to this document require Board action as described in AS 37.13.080. Following any Board approved amendment to this document, changes will be noted in Board meeting minutes and as soon as practicable this document will be amended to reflect the approved changes and posted on the APFC website.

The Policy & Procedures addressed herein shall be interpreted and applied in a manner consistent with: (1) 15 AAC 137.410 – 15 AAC 137.990, and (2) AS 37.13.120.

B. Roles of Board, Staff, Consultants, and Advisors

The Board has the primary fiduciary responsibility for investing Fund assets in accordance with the Alaska Constitution and applicable law. The roles of the Board are to set investment policy and procedures, oversee investment management through the Executive Director and Staff through regularly scheduled and special meetings, and ensure the adequacy of staff resources and structure needed for the Corporation to fulfill its objectives as effectively as possible.

APFC Staff, in turn, is tasked with the fiduciary responsibility for managing the investment portfolio and operations needed to fulfill the Fund’s objectives, as specified by the Board, in line with the Policy & Procedures. Staff advises and informs the Executive Director and the Board about investments and recommends changes as needed to the Policy & Procedures. Staff executes all transactions, performs risk-management functions, and prepares investment reports.

Consultants provide advice and implementation assistance on investment programs to the Board and Staff on both the overall Fund as well as with specific asset classes. Consistent with 15 AAC 137.460(b)(2), Consultants may also be used to evaluate whether a specific investment is a prudent investment of Fund assets.
Finally, Consultants report on the progress that the Fund is making with regard to specific programs and makes comparisons of Fund performance against its target benchmarks, including Fund peers.

Consistent with the Board’s Charters and Governance Policies, Investment Advisors are selected by the Board to provide education, advice, commentary, and discussion as requested at Board meetings, based upon their industry experience with peer institutions.

C. **Total Fund Objectives**

The objective of the Fund is to provide compelling investment returns with acceptable levels of risk. To that end, the effectiveness of the Fund’s design and portfolio management will be assessed based upon the following criteria:

i. **Investment Performance**: ability to meet or exceed long-term (5+ years) inflation-adjusted actuarial, medium-term (3-year) peer group, and short-term (1-year) index benchmarks;

ii. **Investment Efficiency**: ability for the Fund to harvest investment returns commensurate with the overall level of risk undertaken by the portfolio, as measured primarily by the Sharpe Ratio; and

iii. **Investment Risk**: ability of the Fund to measure and control risks in line with State and Board tolerances and peer group norms.

D. **Total Fund Asset Mix**

APFC’s investment programs are organized by asset classes, each of which has a specific investment objective and liquidity profile. The total return objectives for the Fund are thus a composite of the “growth” or “income” objectives for each asset class. Furthermore, expected return hurdles for each asset class are a function of investment risk (as measured by volatility or Value-of-Risk) and liquidity.

APFC Staff will assist the Board in engaging in an asset allocation study for the Fund at least once every five (5) years to review asset classes, return-risk assumptions, and correlations of investment returns with applicable benchmarks and across asset classes. A key objective of the asset allocation study shall be the development through statistical modelling techniques of a diversified portfolio that specifies ranges of prudent portfolio exposures and “long-term target” position for each asset class. The normal portfolio mix will represent the portfolio that is expected to meet the Board’s actuarial, peer group, and index benchmark targets within the risk tolerances specified herein.

Each asset class allocation percentage has a “long-term target” position within the overall portfolio as well as maximum and minimum ranges around those targets. Ranges are specified by a “green zone” which reflect normal expected variability around the targets, “yellow zones” which prescribe remediation by the staff according to prudent portfolio management over a reasonable period of time, and “red zones” which require reporting to
the Board and a remediation plan to be presented by staff at the regularly scheduled Board Meetings. Allocation ranges of these zones are expressed as percentages of the overall Fund.

Table 1

<table>
<thead>
<tr>
<th>Category</th>
<th>Target Allocation (FY2019)</th>
<th>Green Zone (CIO)</th>
<th>Yellow Zone (ED)</th>
<th>Red Zone (Board)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment Objective</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td>60%</td>
<td>+/- 10%</td>
<td>0-5% beyond the green zone</td>
<td>&gt;5% beyond the green zone</td>
</tr>
<tr>
<td>(Public Equities + Private Equity &amp; Special Opp. + Absolute Return + Asset Allocation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>40%</td>
<td>+/- 10%</td>
<td>0-5% beyond the green zone</td>
<td>&gt;5% beyond the green zone</td>
</tr>
<tr>
<td>(Fixed Income Plus + Real Estate + Infrastructure &amp; Private Income)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Investment Objective - Liquidity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tradable</td>
<td>65%</td>
<td>+/- 10%</td>
<td>0-5% beyond the green zone</td>
<td>&gt;5% beyond the green zone</td>
</tr>
<tr>
<td>(Public Equities + Fixed Income Plus + Asset Allocation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiquid</td>
<td>35%</td>
<td>+/- 10%</td>
<td>0-5% beyond the green zone</td>
<td>&gt;5% beyond the green zone</td>
</tr>
<tr>
<td>(Private Equity &amp; Special Opp. + Real Estate + Infrastructure &amp; Private Income + Absolute Return)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Asset Classes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Equities</td>
<td>30%</td>
<td>+/- 5%</td>
<td>0-10% beyond the green zone</td>
<td>&gt;10% beyond the green zone</td>
</tr>
<tr>
<td>Fixed Income Plus</td>
<td>22%</td>
<td>+/- 5%</td>
<td>0-10% beyond the green zone</td>
<td>&gt;10% beyond the green zone</td>
</tr>
<tr>
<td>Private Equity &amp; Special Opp.</td>
<td>12%</td>
<td>+/- 5%</td>
<td>0-5% beyond the green zone</td>
<td>&gt;5% beyond the green zone</td>
</tr>
<tr>
<td>Real Estate</td>
<td>11%</td>
<td>+/- 5%</td>
<td>0-5% beyond the green zone</td>
<td>&gt;5% beyond the green zone</td>
</tr>
<tr>
<td>Infrastructure &amp; Private Income</td>
<td>7%</td>
<td>+/- 5%</td>
<td>0-5% beyond the green zone</td>
<td>&gt;5% beyond the green zone</td>
</tr>
<tr>
<td>Absolute Return</td>
<td>5%</td>
<td>+/- 3%</td>
<td>0-5% beyond the green zone</td>
<td>&gt;5% beyond the green zone</td>
</tr>
<tr>
<td>Asset Allocation</td>
<td>5%</td>
<td>+/- 3%</td>
<td>0-3% beyond the green zone</td>
<td>&gt;3% beyond the green zone</td>
</tr>
</tbody>
</table>

E. Total Fund Measurement & Reporting Criteria—Performance Scorecard

The Board’s General Consultant will deliver reports to the Board at each regular Board meeting which indicate whether the Fund is meeting its objectives as described in the Policy & Procedures. In addition, the General Consultant will provide a “Performance Scorecard” at each Board meeting based on the prior quarter-end investment performance intended to assess the overall effectiveness of the Fund in terms of its objectives as outlined above in Section II.C. Reporting on measures of Investment Performance and Investment Efficiency will be distilled into the equivalent of “percentile rankings” through comparisons with peers (i.e., institutional investment plans) and through the computation
of statistical “Z-scores” against investment return and variability targets. The overall percentile ranking of the Fund will be assessed and reported as the simple average of its returns in comparison with long-term (5+ year) inflation-adjusted actuarial, medium-term (3-year) peer group, and short-term (1-year) index benchmarks.

Each asset class is associated with a benchmark that describes in general terms the opportunity set and return characteristics associated with the asset class. For certain private or more complex asset classes, the benchmark serves as a proxy for expected returns rather than an approximation of the actual investments that will characterize that component of the portfolio. Those benchmarks, along with the allocation ranges, for each asset class are also referred to as Policy Benchmarks. Note that the investment returns and benchmarks for Private Equity & Special Opportunities, Real Estate, and Infrastructure & Private Income are lagged by 1-quarter for performance calculation purposes, as is common practice among large complex investment plans in the United States and internationally.

The long-term investment objectives for the Fund should target a return of CPI+5% or better into the future. This CPI+5% or better target should be achieved through a combination of (1) strategic asset allocation among the asset classes, (2) tactical asset allocation, which overweights or underweights specific assets classes on a shorter-term basis due to perceived valuational or risk imbalances between the asset classes, and (3) value-added contributions within each asset class. The following table reflects the long-term return objectives and short-term benchmarks for each of the asset classes based upon the prevailing strategic asset allocation and value-added contributions from both tactical asset allocation and asset class portfolio management:
Table 2

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Equities</td>
<td>CPI+5.25%</td>
<td>38%</td>
<td>37%</td>
<td>35%</td>
<td>100% MSCI ACWI IMI (BB ID: M1WDIM)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25% BB US Agg (BB ID: LBUSTRUU)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25% BB US Corporate (BB ID: LUACTRUU)</td>
</tr>
<tr>
<td>Fixed Income Plus</td>
<td>CPI+2%</td>
<td>22%</td>
<td>20%</td>
<td>18%</td>
<td>10% BB Gbl Treasury ex-US (BB ID: LGT1TRUH)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10% BB US HY 2% Issuer Cap (BB ID: LF89TRUU)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10% S&amp;P Gbl REIT Net (BB ID: SREITGUN)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5% S&amp;P Gbl Listed Infra. Net (BB ID: SPGTRINNT)</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>5% 90 Day T-Bills (BB ID: G001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5% BB US TIPS (BB ID: LBUTRUU)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.5% JPM GBL-EM Gbl Diversified (BB ID: JPMGCPPC)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.5% JPM EMBI Gbl Diversified (BB ID: JPMEVRIUG)</td>
</tr>
<tr>
<td>Private Equity &amp; Special Opp.</td>
<td>CPI+7.5%</td>
<td>12%</td>
<td>13%</td>
<td>14%</td>
<td>100% Cambridge PE (Lagged) (BB ID: No ID)</td>
</tr>
<tr>
<td>Real Estate</td>
<td>CPI+5%</td>
<td>11%</td>
<td>12%</td>
<td>13%</td>
<td>100% NCREIF Property (Lagged) (BB ID: NPWITR)</td>
</tr>
<tr>
<td>Infrastructure &amp; Private Income</td>
<td>CPI+5%</td>
<td>7%</td>
<td>8%</td>
<td>9%</td>
<td>60% FTSE Developed Core Infra. (Lagged) (BB ID: TFCIIU)</td>
</tr>
<tr>
<td>Absolute Return</td>
<td>CPI+5%</td>
<td>5%</td>
<td>5%</td>
<td>6%</td>
<td>40% BB US HY 2% Issuer Cap (Lagged) (BB ID: LF89TRUU)</td>
</tr>
<tr>
<td></td>
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<td>100% HFRI Total HFOF Universe (BB ID: HFRIFWI)</td>
</tr>
<tr>
<td>Asset Allocation</td>
<td>CPI+3%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>40% 90 Day T-Bills (BB ID: G001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23% MSCI ACWI IMI (BB ID: M1WDIM)</td>
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<td></td>
<td></td>
<td></td>
<td>2% 90 Day T-Bills (BB ID: G001)</td>
</tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>1% BB US TIPS (BB ID: LBUTRUU)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3% BB US Agg (BB ID: LBUSTRUU)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3% BB US Corporate (BB ID: LUACTRUU)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1% BB Gbl Treasury ex-US (BB ID: LGT1TRUH)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.5% JPM GBL-EM Gbl Diversified (BB ID: JPMGCPPC)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.5% JPM EMBI Gbl Diversified (BB ID: JPMGCPPC)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1% BB US HY 2% Issuer Cap (BB ID: LF89TRUU)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1% S&amp;P Gbl REIT Net (BB ID: SREITGUN)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1% S&amp;P Gbl Listed Infra. Net (BB ID: SPGTRINNT)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7% Cambridge PE (Lagged) (BB ID: No ID)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7% NCREIF Property (Lagged) (BB ID: NPWITR)</td>
</tr>
<tr>
<td>Implied Strategic Target Return</td>
<td>CPI+4.6%</td>
<td>CPI+4.7%</td>
<td>CPI+4.8%</td>
<td></td>
<td>3% FTSE Developed Core Infra. (Lagged) (BB ID: TFCIIU)</td>
</tr>
<tr>
<td>Plus value-added tactical allocation</td>
<td>.25-.5%</td>
<td>.25-.5%</td>
<td>.25-.5%</td>
<td></td>
<td>2% BB US HY 2% Issuer Cap (Lagged) (BB ID: LF89TRUU)</td>
</tr>
<tr>
<td>Overall Long-Term Target Return</td>
<td>CPI+5%</td>
<td>CPI+5.1%</td>
<td>CPI+5.2%</td>
<td></td>
<td>3% HFRI Total HFOF Universe (BB ID: HFRIFWI)</td>
</tr>
</tbody>
</table>
In addition, after the conclusion of each fiscal year, the General Consultant will provide an asset class breakdown of the Performance Scorecard (in addition to the total Fund Performance Scorecard which will be reported quarterly). Rather than utilizing equal weightings among long-term, medium-term, and short-term objectives, however, the asset class Performance Scorecards will reflect the greater relevance of short-term (40% weight) and medium-term peer group (40% weighting) objectives versus the long-term inflation-adjusted actuarial (20% weighting) objective for Public Equity, Asset Allocation, and Fixed Income Plus asset classes. By contrast, private markets asset classes including Private Equity & Special Opportunities, Real Estate, Infrastructure & Private Income will emphasize the greater importance of medium term peer group (40% weighting) and long-term inflation-adjusted actuarial (40%) objectives versus the short-term index benchmark (20% weighting) objective.

Peer group comparisons will generally be made on a 3-year (medium-term) basis for assessing the effectiveness of the Fund and its asset classes. Fund peers will include large US Public Funds as well as other plans deemed comparable by the General Consultant, Staff, and Board. To the extent that peer comparisons may not be directly available for specific asset class comparisons, the General Consultant should select the closest available proxy for comparison and percentile ranking purposes (including the use of statistical Z-scores when appropriate). The Fund’s Performance Benchmark (comprised of both publicly-traded and private-market indexes, see Table 3) will be used as a proxy for the Peer Group comparisons on an ongoing basis.

### Table 3

<table>
<thead>
<tr>
<th>Total Fund Performance Benchmark Indices</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCI ACWI IMI (BB ID: M1WDIM)</td>
<td>39%</td>
<td>38%</td>
<td>36%</td>
</tr>
<tr>
<td>90 Day T-Bills (BB ID: G001)</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>BB US TIPS (BB ID: LBUTRUL)</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>BB US Agg (BB ID: LBUSTRUL)</td>
<td>6%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>BB US Corporate (BB ID: LUACTRUL)</td>
<td>6%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>BB Gbl Treasury ex-US (BB ID: LGTI1RUH)</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>JPM GBI-EM Gbl Diversified (BB ID: JGCCCMP)</td>
<td>1%</td>
<td>1%</td>
<td>0.5%</td>
</tr>
<tr>
<td>JPM EMBI Gbl Diversified (BB ID: JGENVUG)</td>
<td>1%</td>
<td>1%</td>
<td>0.5%</td>
</tr>
<tr>
<td>BB US HY 2% Issuer Cap (BB ID: LF89TRU)</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>S&amp;P Gbl REIT Net (BB ID: SREITGUN)</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>S&amp;P Gbl Listed Infra. Net (BB ID: SPGTPNNT)</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Cambridge PE (Lagged) (BB ID: No ID)</td>
<td>12%</td>
<td>13%</td>
<td>14%</td>
</tr>
<tr>
<td>NCREIF Proerty (Lagged) (BB ID: NPPITR)</td>
<td>11%</td>
<td>12%</td>
<td>13%</td>
</tr>
<tr>
<td>FTSE Developed Core Infra. (Lagged) (BB ID: TFDICIU)</td>
<td>4%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>BB US HY 2% Issuer Cap (Lagged) (BB ID: LF89TRU)</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>HFRI Total HFOF Universe (BB ID: HFRIFW)</td>
<td>5%</td>
<td>5%</td>
<td>6%</td>
</tr>
</tbody>
</table>
Index comparisons are to be utilized for assessing the short-term (1-year) performance of the Fund. Such comparisons should include a Passive Index Benchmark (comprised of investable publicly traded securities, reflected as 60% MSCI ACWI IMI (BB ID: M1WDIM), 20% BB US Agg (BB ID: LBUSTRUE), 10% BB US TIPS (BB ID: LBUTTRU), and 10% FTSE EPRA/NAREIT Developed Rental (BB ID: TENGRU).

F. **Total Fund Portfolio Implementation, Restrictions, Delegations**

The structure of the Fund is organized through asset classes, each with a distinctive investment objective (growth or income) as well as liquidity profile (tradable or illiquid), plus an allocation to a portfolio named “Asset Allocation,” designed to: (1) manage Fund liquidity, and (2) manage Fund risk through rebalancing and tactical hedging. APFC Staff directs all investment activities through a delegation from the Board to the Executive Director as described in the Board’s Bylaws. Delegations of Investment Authority will thus be conferred from the Board to the Executive Director (ED) and then by extension to specific investment staff in order to effect investment transactions. The Executive Director will also convene a Public Markets Investment Committee and a Private Markets Investment Committee on a regular and as needed basis in order to discuss and deliberate on decisions requiring the authorization of ED from the Policy & Procedures or Investment Guidelines. Investment decisions resulting from those meetings will generally be affirmed by email to and from the ED.

G. **Relationship of the Policy & Procedures with Regulations and Investment Guidelines**

As required by Alaska Statute 37.13.120(a), the Board has adopted regulations specifically designating the types of investments that Fund assets can be invested in. All investments authorized by the Policy & Procedures shall be limited to those investments authorized and in the manner authorized by the Board’s investment regulations, 15 AAC 137.010 – 15 AAC 137.990. Recommended changes to these regulations must be approved by the Board and adopted in conformity with the process provided in Alaska Statute 37.13.206.

The Investment Guidelines attached as Appendix A, reflect the day-to-day operational expectations and requirements needed to ensure effective management of Fund assets consistent with the regulations and the Policy & Procedures. With the written approval of the Executive Director, the Investment Guidelines may be amended. Amended Investment Guidelines will be provided and described to the Board at its next regular meeting.
III PUBLIC MARKETS

A. Public Equity

i. Objective

The objective of the Public Equity portfolio is to invest in publicly traded securities to meet or exceed the performance of a well-diversified pool of global equities, embodied in the MSCI ACWI IMI Index, while staying within predefined risk constraints.

The above objective is achieved via both external and internal investment management activities with respect to security selection and allocation size.

ii. Structure

The structure of the Public Equity portfolio may include a combination of actively and passively managed investments within prescribed tracking error targets relative to the ACWI IMI benchmark:

- Actively managed equity strategies that strive to enhance total returns of a portfolio relative to its assigned benchmark; and
- Passively managed equity strategies that strive to replicate, in a cost efficient manner, the returns of a benchmark index.

iii. Authorized Investments

The Public Equity portfolio, whether external or internal, are authorized to invest in the following:

- All publicly traded equity securities described in 15 AAC 137.440(1), including equity-oriented funds, or equity related securities, and securities issued in underwritten initial public offerings (“IPOs”);
- Equity derivatives as described in 15 AAC 440(2), including forwards, futures, options, swaps, collateralized securities, and structure notes; and
- Other investment as permitted in the APFC Regulations, including commingled investment funds as described in 15 AAC 137.470.

iv. Rebalancing and Mandate Modification

The Director of Public Equity may:

- With the approval of the Chief Investment Officer and the Executive Director, add, terminate, or rebalance Public Equity portfolio mandates and allocations for external investment managers; and
- Rebalance assets to, from, or between individual Public Equity portfolios at his/her own discretion within the Investment Guidelines.
B. Fixed Income Plus

i. Objective

The Fixed Income Plus portfolio is intended to provide meaningful income-oriented investment returns and diversify the risks of the Fund’s equity and other growth-oriented programs. This portfolio should provide steady, low volatility returns in normal market conditions and act as a cushion when more volatile asset classes experience a market drop. The liquidity of this portfolio will also allow it to serve as a funding source for other, less liquid asset classes, and to meet annual Fund liabilities. The Fixed Income Plus portfolio invests in publicly traded and other liquid income-oriented investments intended to meet or exceed the investment return of an index composite benchmark comprised of liquid, income-producing assets.

ii. Structure

Consistent with performance objectives, and applicable tracking error guidelines, the structure of the Fixed Income Plus portfolio may include:

- Actively managed income producing strategies that strive to enhance total returns of a portfolio relative to its assigned benchmark; and
- Passively managed income producing strategies that strive to replicate, in a cost efficient manner, the returns of the benchmark index.

iii. Authorized Investments

The Fixed Income Plus portfolio, whether external or internal, is authorized to invest in the following:

- All fixed-income investments as described in 15 AAC 137.430, including US and International fixed-income securities including those issued in the Emerging Markets, with investment grade, non-investment grade (high yield) or implied ratings;
- Fixed-income derivatives as described in 15 AAC 137.430(a)(19), including forwards, futures, options, swaps, collateralized securities, structured notes, and credit default swaps;
- Real Estate Investment Trusts (REITs) and real estate investment trust exchange traded funds as described in 15 AAC 137.450(a)(4);
- Exchange traded securities, commingled funds, and other tradable investments related to liquid infrastructure investments; and
- Other investment as permitted in the APFC Regulations.

iv. Rebalancing and Mandate Modification

The Director of Fixed Income Plus may:
• With the approval of the Chief Investment Officer and Executive Director hire, terminate, approve or modify any external manager mandate within Fixed-Income Plus; and
• Rebalance assets to, from or between individual external managers at his/her discretion within the Investment Guidelines.

C. Asset Allocation

i. Objectives

The objectives of the Asset Allocation portfolio are to: (1) provide liquidity management for the Fund, (2) manage foreign currency risks, (3) avoid “cash drag” by maintaining synthetic public equity and fixed-income exposure to surplus portfolio cash, (4) manage allocation transfers between asset classes, and (5) manage a liquid Risk Parity portfolio with an attractive risk/return profile.

ii. Structure and Authorized Investments

The Asset Allocation portfolio refers to four distinct programs, each with specific roles for the Fund:

• Liquidity Program—Comprised of cash, cash equivalents and other liquid investment balances, including lines of credit and letters of credit, this program is intended to meet the Fund’s operational needs including capital calls and appropriations from the earnings reserve account to the State’s general fund. This program may also utilize stock and bond-related securities used for transitional purposes;

• Cash Overlay Program—Comprised of exchange-traded and over-the-counter derivatives managed by external investment managers to provide efficient exposure to public equity and fixed-income markets, thereby reducing “cash drag” that is a natural side effect of holding cash for liquidity management purposes;

• Currency Overlay Program—Comprised of currency-related derivatives, as described in 15 AAC 137.480, managed by external investment managers, this program seeks to add value and manage the risks associated with the Fund’s exposure to foreign currencies; and

• Risk Parity Program—Designed to deliver long-term returns of CPI+5% or better through external managers which seek to generate returns that are less correlated to global public markets through allocation of risk (i.e. volatility) rather than allocation of capital. Private market investments are generally excluded from Risk Parity funds. Because Risk Parity investments are diversifying, they represent a small share of the Fund’s risk while generating a proportionately larger share of the Fund’s returns. To avoid investment manager
of risk, allocations to Risk Parity external managers shall be limited to no more than 1% of the Fund at the time of investment. Risk Parity investments are generally liquid and highly scalable. Risk Parity Fund investments will be consummated following a search process and the recommendation of APFC’s General Consultant.

D. Securities Lending

The Executive Director may execute an agreement with the Fund’s custodian or other lending agent to lend domestic and non-domestic public equity and debt securities from the Fund’s portfolio directly to borrowers for a fee in accordance with 15 AAC 137.510 and the following guidelines:

i. The custodian or lending agent shall extend without reservation or qualification complete indemnification against any direct loss from a borrower default, the reinvestment of cash collateral, and failure to comply with the terms and conditions of the lending agreements;

ii. As described in 15 AAC 137.510, collateral shall be required at the following levels:

iii. Minimum of 102% of the market value of the loaned securities which are denominated in the same currency as the collateral provided by the borrower; and

iv. Minimum of 105% of the market value of the loaned securities which are denominated in a currency other than the collateral provided by the borrower;

v. Collateral and loaned securities shall be marked to market daily;

vi. The investment of cash collateral posted by borrowers shall be restricted to those investment-grade securities permissible under the provisions of AS 37.13.120, 15 AAC 137, and the Investment Guidelines; and

vii. The Corporation shall periodically review investments of cash collateral for compliance with the provisions of AS 37.13.120, 15 AAC 137, and the Investment Guidelines.

At the discretion of the Executive Director, the Corporation may elect to have cash collateral released to the Corporation to meet liquidity needs rather than having it invested by the Custodian or lending agent.
IV  ALTERNATIVE INVESTMENTS

A. Private Equity & Special Opportunities

i. Objectives

The objective of the Private Equity & Special Opportunities portfolio is to diversify and enhance the overall expected return of the Fund through the identification, purchase, and sales of illiquid growth-oriented investments. The portfolio will seek to benefit from the:

- long-term ownership of businesses and assets;
- application of specialized skills;
- allocation of capital into disrupted markets; and
- potential incremental return premium connected with the illiquidity of targeted investments.

Private Equity: Private equity assets are typically characterized by long investment horizons and limited liquidity but bring to the Fund increased diversification and the potential for risk-adjusted returns that exceed those of publicly-listed securities. In constructing a diversified private equity portfolio, Staff will consider the following characteristics: strategy, geography, industry, investment size, leverage, investment structure, competitive landscape, market position, and vintage year.

Special Opportunities: Technological innovation and market volatility periodically create attractive investment opportunities that do not fit precisely into standard, predetermined categories. These opportunities may be caused by temporary market dislocations, evolving social or economic trends, or a changing regulatory environment. APFC seeks to be positioned to capture such opportunities for the benefit of the Fund.

Portfolio performance will be evaluated using:

- a comparison of vintage year performance against the Cambridge Private Equity Index benchmark; and
- a comparison of long-term performance over five- and ten-year rolling periods to public equity benchmarks plus a premium of 200 basis points;
- and CPI+7.5%.

Annually, Staff will provide to the Board a pacing and investment plan that reflects then current exposures, assumptions, and outlook.

ii. Structure

Investment strategies include venture capital, growth equity, leveraged buyouts, special situations, and distressed debt. Opportunities are accessed both through long-term
commitments to funds managed by external investment managers and through co-investments and direct investments into operating companies.

The purchase or sale of individual private equity or special opportunities investments or fund investments with a single manager that exceed 1% of the Fund shall be approved by the Board. In addition, as described in 15 AAC 137.460(b), investments into new externally-managed funds may be consummated following the advice and recommendation of a qualified, independent consultant. A commitment to successor funds to ones previously invested in by APFC shall also be deemed consistent with regulation. Co-investments and direct investments shall only be consummated pursuant to the advice and recommendation of a qualified, independent consultant. That said, a co-investment alongside an existing discretionary manager or a commitment to subsequent funds managed by an existing discretionary manager, shall generally be considered as having met the requirements of 15 AAC 137.460(b).

B. Real Estate, Infrastructure, and Private Income

i. Objective

The long-term objective of the Real Estate, Infrastructure & Private Income Portfolio is to generate a return between the expected return for public equity and fixed income that is comprised of an attractive level of current income and capital appreciation, while maintaining a prudent diversification of assets. Staff will seek to accomplish this as follows:

- Achieve investment returns in excess of the long-term and short-term portfolio benchmarks listed in Section II.E, Table 2;
- Generate a sustained, attractive level of current income judged relative to comparable risk/income investments available in the public markets; and
- Construct a diversified portfolio as measured by the following attributes: asset type, strategy, industry, geography, vintage year, inflation sensitivity, public market sensitivity, and fund or asset manager.

ii. Structure

APFC shall invest in the Real Estate, Infrastructure & Private Income Portfolio primarily through limited liability entities into (i) commingled or separately managed fund investments with independent fiduciaries, (ii) co-investments with independent fiduciaries, or (iii) direct equity interests in, or debt obligations secured by, securities or interests of real assets or companies. Fund investments shall primarily be made through commitments to drawdown funds with multi-year investment periods, followed by multi-year harvest periods and a defined termination date. As described in 15 AAC 137.460(b), co-investments shall primarily be made alongside current APFC investment managers or upon the advice of a qualified, independent consultant.
iii. Authorized Investments

The Real Estate, Infrastructure & Private Income Portfolio will consist of four programs with specific goals designed to contribute to long-term objectives of the portfolio and the Fund. The performance of these programs will be evaluated individually against the return mandate of the portfolio and an asset-specific benchmark. The purchase or sale of individual investments or fund investments with a single manager in any of the four programs that exceed 1% of the Fund shall be approved by the Board.

- Private Real Estate: Private Real Estate investments shall primarily target (i) directly-held income producing, core real estate in the United States and globally, (ii) directly-held build-to-core or other non-core properties, (iii) funds that invest predominantly in real estate strategies (e.g. core, core-plus, value-added, and opportunistic), and (iv) co-investments alongside fund managers described above.

- Private Infrastructure: Private Infrastructure investments shall primarily target long-lived assets and companies that exhibit contractual or inflation protection characteristics, while safeguarding principal. Investments may include energy infrastructure, transportation, water infrastructure, telecommunications, social infrastructure (e.g. lotteries, student housing, prisons), other infrastructure (e.g. protected income stream assets, other interests of infrastructure issuers, infrastructure-related assets), other real assets (e.g. timberlands, agricultural farmlands, leasable hard assets), and any other tangible or intangible asset that possesses similar characteristics as those outlined in this section.

- Private Credit: Private Credit investments, in the context of a diversified portfolio, shall exhibit a high level of income and potentially provide for capital appreciation, while safeguarding principal. These investments shall primarily target funds that pursue one or more of the following strategies: direct lending, subordinated and mezzanine lending, distressed debt, opportunistic credit-oriented funds with flexibility to pursue illiquid and liquid strategies, and other private credit (e.g. special situations, asset-based lending, structured credit, leasing, royalties lending, ventured debt).

- Income Opportunities: The dynamic nature of global markets, company innovation, market volatility, and behavioral economics often create attractive investment opportunities that do not fit precisely into standard, predetermined categories. These Income Opportunities, to the extent they are income generating in nature, shall be included in the Real Estate, Infrastructure & Private Income portfolio.
C. Absolute Return

i. Objective

The long-term objective for the Absolute Return Portfolio is to deliver reasonably consistent and accretive returns that are largely uncorrelated with traditional, market-driven asset classes. The Absolute Return Portfolio seeks to accomplish this goal by pursuing the following investment objectives:

- Achieve investment returns in excess of the long-term and short-term portfolio benchmarks listed previously in Section II.E, Table 2;
- Generate a long-term correlation of monthly returns compared to the Fund’s overall returns of less than fifty percent (50.0%) as measured over rolling 36 month periods; and
- Generate an ex-ante standard deviation of monthly returns of less than twelve percent (12.0%) per annum as measured over rolling 36 month periods.

ii. Structure

APFC shall invest the Absolute Return Portfolio by committing to comingled or separately managed limited liability entities classified as direct funds or fund-of-funds managers. These managers may invest in public or private securities and other financial instruments and may use leverage consistent with other managers of similar strategies. Funds will often have restrictions on liquidity including redemption windows (e.g. monthly, quarterly, annually), notice periods (e.g. 30, 60, or 90 days), lock-ups (e.g. soft, hard), gates (e.g. investor-level, fund-level), and, at times, withdrawal fees. Fund investments shall primarily be made through subscriptions into open-ended investment vehicles.

iii. Authorized Investments

The Absolute Return Portfolio shall primarily target funds that include one or more of the following strategies, with no fund exceeding 10% of the Absolute Return Portfolio size as measured at the time of investment without Board approval:

- Relative Value, including equity market neutral, fixed income arbitrage, and convertible arbitrage;
- Event-Driven, including merger arbitrage, distressed securities/discounted bank debt, and special situations; and
- Directional/Tactical/Opportunistic, including long-short equity, managed futures, and global macro.
V ALASKA INVESTMENT POLICY

To implement the requirements of Alaska Statute 37.13.120(c), the Board believes the Fund should have an in-state investment policy that maintains the investment integrity of the Fund and is both proactive and impartial. As such, any in-state investment should be considered by APFC under the following considerations:

- Honor Alaska Statute 37.13.120(c): Prescribes that if an Alaskan investment has equivalent risk and expected return comparable to or better than a similar non-Alaskan investment, the Alaskan investment should be preferred.
- Require Compelling Risk-Adjusted Returns: To honor the prudent investor rule provided in Alaska Statute 37.13.120(a), any Alaskan investment contemplated by APFC must be attractive on a stand-alone basis.
- Ensure Fund Diversification: In order to provide sufficient risk diversification as required under Alaska Statute 37.13.120(c), the total of all in-state investments shall generally not exceed 1% of the Fund without Board approval (measured at the time of purchase)—includes public and private market investments.
- Seek Participation by Non-Alaskan Institutional Investors: In order to ensure that an Alaskan investment opportunity is attractive on a stand-alone basis and satisfies the institutional quality requirements of 15 AAC 137.420, APFC should generally seek to invest into an Alaskan investment alongside of at least one of its peers (i.e., a large institutional investor, which may include endowments, foundations, sovereign wealth funds, or public or private pension funds).
VI  AUTHORIZED USE OF DERIVATIVES

A. Objective

This section of the Policy & Procedures describes the application and limitations for the use of derivatives authorized in 15 AAC 137.430, 15 AAC 137.440, and 15 AAC 137.460; and defined in 15 AAC 137.990(6) and (7). Efficient portfolio management and reduction of risk in various Fund portfolios is the primary purpose for the use of derivatives by Fund managers.

The requirements of this section of the Policy & Procedures shall apply to all derivatives transactions executed by APFC Investment Staff and all external managers operating under an Investment Management Agreement.

B. Derivatives Definition; Authorization

As defined in 15 AAC 137.990(6), “Derivative” means “an instrument whose value, usefulness, and marketability is dependent upon or derives from an underlying asset; classes of derivatives include futures contracts, options, forward contracts, including currency forward contracts, swaps, and options on futures.”

Both exchange traded and over the counter (“OTC”) derivative instruments are under the scope of the Policy & Procedures. Exchange traded derivatives are listed and traded on a national exchange. In the exchange, the derivative contracts are standardized, there is no credit risk between market participants because the exchange generally guarantees the fulfilment of the contract, and there is a very visible and transparent market price of the instruments. By contrast, OTC derivatives are privately negotiated between a buyer and a counterparty directly, which may result in non-standard terms. Consequently, the value of the derivative may be affected by the credit-worthiness of the counter-party, triggering the need for this section of the Policy & Procedures.

C. Derivatives Applications Permitted

Derivative instruments maybe used by internal and external managers to achieve the objectives described in this section. Permitted applications of derivatives include:

- Implement investment strategies in a lower cost and efficient manner;
- Efficiently manage portfolio exposures synthetically as opposed to trading underlying securities;
- Build portfolios with targeted risk and return characteristics that otherwise could not be efficiently created with securities;
- Hedge and control risks of portfolios and the total Fund so they better align with benchmarks and objectives; and
- Facilitate rebalancing.
D. Derivatives Risk Management and Compliance

APFC Staff shall have due regard for operational risk associated with various derivatives strategies, including risk management, accounting systems, liquidity needs, adequate staffing, and staff qualifications.

Management of counterparty risk is required to reduce the possibility of the Fund being overly exposed to risk that a counterparty fails to fulfill its financial obligation. The risks associated with an individual counterparty may change due to factors like financial solvency, systemic risks, regulatory or legal claims; operational fraud, and financial stress.

APFC Staff will monitor and report on counterparty risk each quarter as follows:

- Regular monitoring and oversight of the exposures within portfolios, including unrealized profit and losses (P&L) and potential exposures;
- Ensuring external investment managers have strong counterparty risk controls;
- Ongoing due diligence of investment managers, including regular onsite meetings with managers.

The Fund will measure counterparty risk as the P&L, netted where applicable from OTC contracts. The P&L more accurately reflects the total amount at risk than the notional contract amount should a counterparty fail to honor its obligation. Net is preferred as the managers usually employ ISDAs and/or netting agreements. Staff will monitor and report these exposures each quarter or more frequently if required. The Fund does not set exposure limits to individual counterparties.

Through the following strategies the risks resulting from the use of derivatives shall be measured and mitigated:

- Analyzing collateral exposure under various rate shocks;
- Establishing minimum counterparty credit ratings that the Fund uses directly;
- Diversifying counterparties;
- Collateral requirements or third-party guarantees.
VII RISK MANAGEMENT & OVERSIGHT

The objective of APFC’s risk management program is the balancing of risk in order to generate investment returns. The assumption of risk is necessary to meet the Fund’s objectives. As such, the Board recognizes that risk cannot be eliminated and should be managed by understanding the risks in various strategies, ensuring the Fund is properly compensated for these risks, and measuring and monitoring them frequently. The Board sets the framework for risk management through the Policy & Procedures, the Fund’s asset allocation, and benchmarks. In addition, the Board will express its risk tolerance in the form of various metrics of risk and defined ranges for those metrics. The CIO, Director of Risk Management and Asset Class Directors shall allocate risk exposure within and between asset classes in order to optimize return.

A. Market Risk Management

APFC Staff will establish a framework for measuring absolute risk of the Fund and its asset classes as well as relative risks in comparison to established benchmarks. This framework should generally include a quantifiable estimates of active and relative risk. APFC Staff will monitor and produce reports as appropriate for the Board, ED, CIO, and other staff which may incorporate the following market risks:

i. Asset Allocation Limits - In addition to the Total Fund level risk limits, the portfolio will be constrained to the asset allocation percentages and ranges prescribed in Section II.D, Table 1. Accordingly, the total exposure to each asset class must be based on the individual exposures of each cash security and each outstanding derivative contract. These limits are specified in the Investment Guidelines.

ii. Active Risk Limits - Tracking error is a measure of how closely a portfolio follows the index to which it is benchmarked. Tracking error is used to ascertain how much the portfolio expected return will deviate from the prescribed risk benchmark. Tracking error is calculated for this purpose on an ex-ante basis using a holdings-based risk analytical system. By convention, tracking error is reported as the annualized one-standard deviation of the expected difference in returns between a portfolio and the risk benchmark. A target tracking error will be imposed on the Total Fund and on each underlying asset class mandate. These limits are specified in the Investment Guidelines.

iii. Relative Risk Limit - Relative risk measures the expected investment portfolio’s risk and return relative to a benchmark using industry-standard risk measures. APFC Staff will model and monitor the Total Fund as compared to its benchmarks to ensure that the total estimated risk for the Total Fund is within the upper and lower bounds of this Policy and Procedure’s risk framework, following the specific green zones illustrated in the Investment Guidelines.

iv. Downside Risk - Downside risk is risk of significant loss of capital. Staff will actively monitor the Total Fund’s downside risk relative to the risk benchmark using scenario
analysis and stress testing. Specific scenario analyses and stress tests are outlined in the Investment Guidelines.

v. Scenario Analysis - Scenario analysis utilizes historical market dislocations to evaluate mark-to-market impacts on the portfolio. For each historical market dislocation, the changes in the major risk factors are applied to the existing portfolio simultaneously. This shock may provide insight into potential future downside risks.

vi. Stress Testing - Stress testing involves shocking a major market factor by a predetermined magnitude to measure the Fund’s change in mark-to-market. Stress testing is designed to determine which factors, given an independent move, produce a large deviation in mark-to-market.

vii. Proxy Securities and Indices - If necessary and prudent, APFC Staff will employ index proxies to approximate the economic characteristics of specific investments to the extent that the terms and conditions of those investments or the underlying holdings (in the case of funds) are not readily available or where the complexity of the underlying investment renders direct empirical measurement impractical.

viii. Private Market Asset Holdings - APFC Staff will actively monitor the portion of the Total Fund invested in private market asset holdings to ensure that the percent of the total fund invested in private markets adheres to the private investments limits outlined in the Investment Guidelines.

ix. Future Commitments - Future commitments are a function of committed capital to private investments where the general partner has the right to drawdown capital from the limited partners over a specified period of time. To mitigate the risk presented because the cash draws are in essence a cash draw liability with unknown timing, APFC Staff will monitor and limit future commitments relative to the Fund’s overall size. Specific limits are outlined in the Investment Guidelines.

In addition to this framework, APFC Staff will monitor regularly and report quarterly on a multitude of risks to the extent they are material, either on an absolute or relative basis, to the Board:

- Economic Environment;
- Country/Currency Risk;
- Counterparty Risk;
- Business Relationship Risk;
- Pricing Risk;
- Credit (Quality) Risk;
- Leverage;
- Debt Refinancing Risk;
- Active Risk Contribution;
• Liquidity Risk;
• Geographical Risk;
• Equity Style Risk;
• Fixed Income Risk;
• Ex-ante versus Ex-post VaR; and
• Ex-ante versus Ex-post Tracking Error

B. Foreign Exchange Risk

Investment managers and APFC Staff, may, with prior approval of the Executive Director, transact in any foreign exchange instrument (including currency futures and forward contracts, options, and swap agreements), to implement their investment strategies, contingent upon such transactions being consistent with the Policy & Procedures and the requirements of 15 AAC 137.480.

APFC Staff analyzes foreign exchange risk regularly and presents quarterly to the Board. This analysis includes both internal hedging and external foreign exchange overlay manager positioning and performance.

C. Legal Risk Management

Legal documentation for all internally managed public and private investments will be reviewed, negotiated and approved for execution by the Executive Director. APFC Staff will seek the assistance, review, and advice of legal counsel for all internally managed investments which are executed by the Executive Director. APFC General Counsel has primary responsibility for the engagement of outside legal counsel for investment matters, subject to applicable statutes and rules adopted by the Office of the Attorney General.

D. Permitted Use of Leverage

APFC Staff and external managers, consistent with the requirements of 15 AAC 137.500 and the Policy & Procedures (including the risk parameters established by the asset allocation ranges), is authorized to use the leverage on behalf of the overall Fund or specific funds and investments, provided that such leverage is non-recourse to APFC or the Fund.
A. Internal versus External Management

The Board retains the authority to select internal versus external management of the Fund’s assets. The Board will consider recommendations from the Executive Director, CIO, Advisors and Consultants to manage portions of or entire investment programs internally.

B. Manager Searches and Selection

The Board authorizes the Executive Director to hire new investment managers and advisors (including real estate advisors) upon conclusion of an appropriate search by a qualified consultant and Staff. Although a specific situation may warrant modifying the process, a typical manager or advisor search process should involve the following steps:

i. setting of relevant search criteria by Staff of applicable manager qualifications;

ii. identification by the Consultant of a list of potential managers that the Consultant believes are qualified to provide the investment management services needed, based on the qualifications and other search criteria established by Staff;

iii. evaluation by a review committee established within the Consultant's organization of the list of potential, qualified managers identified with the goal of recommending managers for consideration to Staff;

iv. informing the CIO of selected managers recommended by the Consultant's review committee;

v. selection by Staff of between three and five of the managers as finalists from those recommended by the Consultant's review committee. This process may include, as part of due diligence, on-site visits by Staff; presentations to Staff by the recommended managers are at the election of the CIO and Executive Director;

vi. analysis by staff which then provides a detailed recommendation to the CIO and Executive Director, taking into account not only manager-specific characteristics but also portfolio considerations; and

vii. approval of the new manager or advisor by the CIO, with Executive Director consent, assignment of benchmarks as appropriate, and the initial amount to be placed under management with the manager.

C. Alternative Manager Search and Selection Process

Circumstances may make a deviation from normal practice appropriate. Even if this alternative process is utilized, the CIO, with Executive Director consent, retains the final manager selection authority. Use of an alternative process may be considered when any of these conditions exist:
i. a manager under consideration for hire has already been vetted in a significant manner either through a search process with a qualified consultant or advisor, or the manager is already employed in a manager capacity by APFC;

ii. the skill for which the manager is being considered is related in a substantive manner to the role the manager already fulfills for APFC or was the subject of a manager search that first identified this manager;

iii. the Consultant and the Staff are both recommending hiring a particular manager for the specific mandate even though the CIO and Executive Director recognize that a more complete search process might reasonably be expected to identify additional qualified candidates to compete for the business;

iv. it is in the best interest of the Fund to move more quickly than the typical procedures permit; or

v. due to confidentiality or specificity of the investment strategy or structure, use of the typical search procedure is not prudent.

When any of the above criteria are present, the Executive Director may modify or waive portions of the typical manager search steps. The CIO and Executive Director are required to report use of the alternative manager search and selection process, along with the rationale for the use, at the next regularly-scheduled Board meeting.

D. Monitoring and Evaluation of Managers

The Board looks to its General Consultant as the primary source of quantitative evaluation of the performance of the Fund and its investment managers. As promptly as possible after the close of each calendar quarter, the Consultant shall submit a report to the Board, Executive Director and CIO analyzing the performance of the Fund, its asset classes and investment programs, including both internally and externally assets. The report shall include a comparison of total Fund performance with the Board's long-term investment goal, an analysis of the returns of each asset class as measured against established benchmarks for each class; and an analysis of the returns of each manager or relevant groupings of managers as measured against relevant benchmarks. The Consultant's report shall also address any special concerns or observations the Consultant concludes should be brought to the attention of the Board, Executive Director and CIO.

The Board expects Staff to also monitor the performance of the Fund's external managers, using the quarterly quantitative performance reports prepared by the Consultant, information obtained from the APFC's annual manager evaluation questionnaire, and such other review and analysis of an individual manager's performance, both quantitative and qualitative, as Staff considers appropriate, including on-site visits to the manager's offices, discussions with other clients of the manager, and such analytical tools as may be available. The CIO and Executive Director shall report to the Board any special concerns or
observations they may have with respect to the performance of a manager no later than the next regular meeting of the Board.

If the CIO and Executive Director terminate or give notice of unsatisfactory performance to a particular manager, they shall inform the Board of the actions and rationale at the next regularly-scheduled Board meeting.

E. Manager Retention

A manager shall be retained by execution of a written investment management agreement ("IMA") with the APFC. The IMA shall address such matters of performance, compensation, and term/termination, investment guidelines, among others, as the APFC and the manager consider necessary and appropriate.

F. Manager Termination

The Board authorizes the CIO, with Executive Director consent, to terminate an investment manager.

G. Reporting

The CIO and Executive Director are required to report all manager additions and terminations, along with the rationale, at the next regular Board meeting.
Appendix A: Investment Guidelines

I. Objective
The objective of the APFC Investment Guidelines is to supplement the APFC Policy & Procedures by providing operational guidelines for APFC’s internal and external portfolio managers. The Executive Director may update this Appendix from time-to-time; updates will be provided to the Board at its next regularly scheduled meeting. Section headings generally correspond to their counterparts in the Policy & Procedures.

II. Total Fund & Portfolio Design Philosophy
The following table outlines the components of the Fund’s Performance Scorecard (which can then be adapted to apply to individual asset classes):

<table>
<thead>
<tr>
<th>Time Horizon</th>
<th>APFC</th>
<th>Benchmark</th>
<th>Spread (Standard Deviation)</th>
<th>Percentile-Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-Term (ST)</td>
<td>1-year Return</td>
<td>Passive Benchmark (60% MSCI ACWI IMI 20% Barclay Global Aggregate (less management and transaction fees) 20% Real Assets (10% FTSE EPRA/NAREIT Rental Index/10% US TIPS))</td>
<td>1-year standard deviation of returns among public plan peers (typically 1%-2%, with 2% being the conservative default)</td>
<td>Implied Percentile {statistical Z-score: [1-NORMSDIST((\text{Return-Benchmark})/2%)} }</td>
</tr>
<tr>
<td>Medium-Term (MT)</td>
<td>3-year Return</td>
<td>Peers Policy Asset Allocation Benchmark Large US Public Plans, or the Performance Benchmark of Publicly traded and Private Market indexes used as a proxy (Table 10.3.1.1)</td>
<td>3-year returns for Peers</td>
<td>Percentile among Peers</td>
</tr>
<tr>
<td>Time Horizon</td>
<td>APFC</td>
<td>Benchmark</td>
<td>Spread (Standard Deviation)</td>
<td>Percentile-Calculation</td>
</tr>
<tr>
<td>--------------</td>
<td>------</td>
<td>-----------</td>
<td>---------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Long-Term (LT)</td>
<td>5-year Return, Sharpe Ratio</td>
<td>CPI + 5% &amp; Sharpe Ratio&gt;0.5</td>
<td>5-year Peer variation (2%), Sharpe Ratio vol = 0.5</td>
<td>Implied Percentile (average): =1 - Normsdist((Return-(CPI+5%))/2%) and =1-Normsdist((SR-0.5)/.5)</td>
</tr>
</tbody>
</table>

### III.A. Public Equity

APFC’s Internal Compliance will issue an alert (i.e., a notification) to APFC’s Director of Public Equity for potential follow-up either internally or with external managers in the following instances:

1. **Tracking Error**: Issue an alert when the tracking error of the overall Public Equity portfolio exceeds 350 basis points (“bps”) versus the MSCI ACWI IMI.

2. **Active manager concentration risk**: Issue an alert when an allocation to an active external manager reaches 5% of total Public Equity allocation; no limits are set *a priori* for passively managed assets.

3. **Other Guidelines**:
   a. **Cash**: Issue an alert when cash held by a manager reaches 5% of the manager’s account’s Net Asset Value (“NAV”). Transactional cash (i.e. payables/receivables) and cash used for collateral will be excluded from this calculation; there is no alert on cash for performance-fee based external managers; there is no alert on cash for internally managed public equity portfolios.
   b. **Percentage Ownership**: Issue an alert when the Fund’s ownership of total shares outstanding of a public company reaches 5% or more. This applies to the total shares outstanding that is used to determine the market capitalization of a company. The guideline above is applied once at the individual account level (internal or external), and separately across all public equity managers combined.
   c. **Short Selling**: Issue an alert in instances of short selling in external and internal accounts (only applies to cash equities and ETFs, not to derivatives);
   d. **Derivatives Holdings (External and Internal Accounts)**: Issue an alert when the gross notional value across all derivatives holdings (exchange traded and OTC) within a public equity account reaches 20% of the account NAV. Guideline applies to aggregate notional value across different types of derivatives; issue an alert
when the gross notional value of all OTC derivatives holdings within an account reaches 10% of the account NAV;
e. **Rebalancing:** Generally, the team leader should seek the approvals from the CIO and ED for rebalancing programs among internal and/or external managers aggregating to in excess of 1% of the value of the Fund.

**III.B. Fixed Income-Plus**

Fixed Income Plus portfolios, whether managed internally or externally, must adhere to the following the guidelines in the table below:
Fixed Income Plus, may, with prior written approval of the Chief Investment Officer, transact in

<table>
<thead>
<tr>
<th>Category</th>
<th>Risk Benchmark</th>
<th>Green Zone (CIO)</th>
<th>Yellow Zone (ED)</th>
<th>Red Zone (Board)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Income Plus (VaR)</td>
<td>25% US Aggregate, 25% US Corp, 10% High Yield, 5% Emerging Market Debt, 10% REIT Index, 10% Non-US Rates, 5% TIPS, 5% Listed Infrastructure, 5% Cash</td>
<td>70% to 120%</td>
<td>50% to 70% &amp; 120% to 140%</td>
<td>&lt;50% &amp; &gt;140%</td>
</tr>
<tr>
<td>Listed Infrastructure</td>
<td>S&amp;P Global Infrastructure</td>
<td>0 to 400 bps</td>
<td>400 to 500 bps</td>
<td>&gt;500 bps</td>
</tr>
<tr>
<td>REITs</td>
<td>S&amp;P Global REIT</td>
<td>0 to 400 bps</td>
<td>400 to 500 bps</td>
<td>&gt;500 bps</td>
</tr>
<tr>
<td>Emerging Market Debt</td>
<td>Barclays EMD Hard Currency Aggregate</td>
<td>0 to 400 bps</td>
<td>400 to 500 bps</td>
<td>&gt;500 bps</td>
</tr>
<tr>
<td>Opportunistic Income</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>International Government Bonds</td>
<td>Barclays Developed Government Bond Index (ex. U.S. &amp; currency hedged)</td>
<td>0 to 200 bps</td>
<td>200 to 300 bps</td>
<td>&gt;300 bps</td>
</tr>
<tr>
<td>Investment Grade Corporate Bonds</td>
<td>Barclays US Investment Grade Corporate Bond Index</td>
<td>0 to 200 bps</td>
<td>200 to 300 bps</td>
<td>&gt;300 bps</td>
</tr>
<tr>
<td>High Yield Corporate Bonds</td>
<td>Barclays US High Yield 2% issuer cap Index</td>
<td>0 to 400 bps</td>
<td>400 to 500 bps</td>
<td>&gt;500 bps</td>
</tr>
<tr>
<td>Treasury Inflation Protected Securities</td>
<td>Barclays U.S. Treasury Inflation Protected Securities Index</td>
<td>0 to 200 bps</td>
<td>200 to 300 bps</td>
<td>&gt;300 bps</td>
</tr>
<tr>
<td>Domestic Fixed Income Aggregate</td>
<td>Barclays US Aggregate Index</td>
<td>0 to 300 bps</td>
<td>300 to 400 bps</td>
<td>&gt;400 bps</td>
</tr>
</tbody>
</table>
any derivative authorized in 15 AAC 137.430(a)(19). For purposes of rebalancing, the Director of Fixed Income Plus shall seek the approval of the CIO and ED for re-allocations among internal and/or external portfolio managers in excess of 1% of the value of the total Fund.

Requirements regarding Cash Account:
- fixed or floating rate securities with weighted average maturities of no greater than 24 months. These securities must be investment grade rated income producing listed securities.
- approved money market funds utilized for cash sweep purposes.
- Commercial paper that, at the time of purchase, is rated: (1) A-a or A-1 by S&P, or (2) P-1 by Moody’s.

Requirements of Corporate Bond Portfolio:
- At time of purchase, security must be investment grade; and
- If a security falls below investment grade, it must be sold within seven months of downgrade.

Requirements of US Aggregate Portfolio:
- At time of purchase, securities must be investment grade.
- If a security falls below investment grade, it must be sold within seven months of downgrade.

Requirements of US TIPS Portfolio:
- Portfolio shall be invested in investment-grade, inflation-linked, income producing instruments.

Requirements of Global Rates Portfolio:
- Portfolio shall be invested in investment-grade, income producing instruments issued by supranational institutions, sovereign governments and their instrumentalities.
- Portfolio exposure to foreign currency cannot exceed 1% of NAV.

Investment Grade Ratings:

Regarding any fixed income investment that is required by the Investment Guidelines to be “investment grade”: (1) if three ratings are given, two must be investment grade, (2) if two ratings are given, both must be investment grade, (3) if one rating is given, it must be investment grade; and (4) if no rating is given, it must have an implied investment grade rating.
III.C. Asset Allocation
The following guidelines should be adhered to for all investments authorized by Policy & Procedures regarding the Asset Allocation portfolio:

a. The Liquidity Overlay Program should be monitored as such:
   a. Overlay manager will equitize cash in the account indicated by the portfolio manager
      i. Overlay manager is allowed to use exchange-traded futures, options on exchange-traded futures, over-the-counter or exchange-traded swap, over-the-counter or exchange-traded option, and forward contracts.
   b. The overlay manager will target an exposure of 65% ACWI IMI and 35% Bloomberg Aggregate Bond index.
   c. The notional value of the overlay exposure will be equal to 100% of the value of the underlying cash with a +/- 5% range to allow for normal daily variations.
   d. The overlay exposure will be trued up on a daily basis by the external manager based on cash reports provided by the APFC custodian.

b. To the extent that additional liquidity is desired to manage plan assets, APFC staff will notify the Board of Trustees and Investment Committee immediately to establish an additional liquidity plan.

c. Additional guidelines will be established for the liquidity portfolio, currency overlay, and Risk Parity programs as needed for the future management of these programs, as they are managed by a combination of internal APFC staff and external investment managers.

IV.A. Private Equity & Special Opportunities

Standard of Care
Higher expected return implies necessarily a wider range of potential outcomes for each of the underlying assets, and this uncertainty increases the importance and the benefits of informed manager selection, rigorous deal selection, and active portfolio management. Accordingly, the following investment guidelines and restrictions are intended to ensure appropriate asset diversification, analytical deliberation, and risk mitigation.

Institutional Quality: All investments must be of institutional investment quality. Institutional quality is defined as an investment that would reasonably be considered acceptable by other prudent institutional investors (e.g., insurance company, commercial banks, employee benefit and retirement plans, endowments and foundations).

Portfolio Diversification: The part of the Private Equity & Special Opportunities portfolio committed to private equity funds will be diversified by strategy, size, vintage, industry, manager, and geography. No more than twenty percent (20%) of the total allocation will be invested at any time with or in any single general partnership, entity, or organization. No single private equity investment strategy, as described below under “Strategy Diversification,” may
comprise more than 70% of the Private Equity & Special Opportunities allocation as established by the Board.

- **Strategy Diversification**: The following private equity strategies and investment types will be considered eligible for the Fund’s portfolio. Long-term ranges are established with percentage exposures based on market value plus undrawn committed capital.
  - **Venture Capital**: (5% to 45%) – Venture capital commitments and investments will be allocated into two categories.
    - Early-Stage: Seed or start-up equity investments in private companies.
    - Later-Stage: Investments in more mature companies to provide funding for growth and expansion.
  - **Buyouts/Acquisition**: (40% to 70%) – Partnerships or direct investments which provide funding to acquire substantial interests in a business or product. These investments will be diversified by industry and other relevant factors.
  - **Specialized Funds or Investments**: (0% to 50%) - This will include, but not be limited to, distressed debt strategies, royalty strategies, other direct investments, co-investments, and certain asset-specific or industry-specific strategies.

- **Geographical Diversification**: Although the priority should be to achieve diversification by investment strategy and industry, geographical diversification is also desirable. Over the long-term, the portfolio should seek reasonably balanced global geographic diversification.
  - International private equity investments should not total more than 40% of the invested private equity portfolio and shall be diversified in the context of the total portfolio.

- **Industry Sector Diversification**: The portfolio shall be diversified by industry sector (e.g., biotechnology, software, financial services, healthcare, medical, media/communications, basic industry, etc.) so that no single industry classification is too heavily represented in the private equity portfolio.

- **Time and Life Cycle Diversification**: Commitments to private investments shall be staged over time, and venture capital investments shall include early, later, and multi-stage investments.

- **General Partner Diversification**: Fund commitments shall be diversified by investment partner and will limit discretionary control of any single general partnership or investment sponsor organization to a maximum of 20% of the total private equity portfolio (based on total commitments).

**IV.B. Real Estate, Infrastructure & Private Income**

i. **Investment Process**
   Real Estate, Infrastructure & Private Income investments shall only be consummated following (i) a search process conducted by a qualified, independent consultant or APFC’s general consultant, (ii) through an existing manager of APFC assets, or (iii) upon the written analysis of a qualified consultant retained to evaluate a specific proposed investment.
Investments will be identified as Private Real Estate, Private Infrastructure, Private Credit, or Income Opportunities at the time of investment and included in each respective composite from that time forward for performance and compliance purposes. Any movement of individual investments between composites will only occur with written approval of the Executive Director.

ii. **Diversification**

APFC Staff shall construct the Real Estate, Infrastructure & Private Income portfolio with a level of diversification consistent with other institutional investors in this asset class, specifically:

a. **Manager Diversification**

   No manager or fund general partner shall represent more than 35% of total Real Estate, Infrastructure & Private Income exposures when measured both on the basis of (i) manager advised NAV divided by total NAV for this portfolio, and (ii) manager advised NAV plus unfunded commitments divided by total NAV for this portfolio plus unfunded commitments.

b. **Strategy Diversification**

   Staff shall manage the portfolio with a combination of the four primary programs defined in the Policy & Procedures. Measured on the basis of NAV plus unfunded commitments (i) 0-75% of the portfolio shall be invested in the Private Real Estate program, (ii) 0-75% of the portfolio shall be invested in the Private Infrastructure program, (iii) 0-50% of the portfolio shall be invested in the Private Credit program, and (iv) 0-50% of the portfolio shall be invested in the Income Opportunities program.

c. **Individual Company and Asset Diversification**

   Individual direct investments and co-investments (or a series of investments in securities issued by the same underlying operating entity or company) will not exceed an aggregate total commitment or cost basis of 1.0% of the value of the total Fund as determined at the time of investment. This rule does not apply to existing positions in excess of this threshold (for example, Tyson’s Corner and 299 Park).

The diversification limits outlined above may be exceeded with written approval of the Executive Director.

iii. **Direct Equity Real Estate Investments Guidelines**

Authorized investments include directly-held core and non-core properties as noted in the Policy & Procedures. The following guidelines apply to those strategies:

a. **Core real estate**: leverage limited to 50% of assets.

b. **Non-core real estate**: leverage limited to 65% of project cost on “build-to-core” assets.

c. **Total directly-held private real estate**: leverage limited to 40% of assets.
d. Any additional land acquired shall be permitted so long as it is fully entitled at point of purchase. Entitlement risk may only be assumed in limited circumstances upon the approval of Executive Director.

iv. ADAC Investments Guidelines

In fiscal year 2018, Staff established an in-house hybrid liquid / illiquid alternative credit effort named Alaska Direct Alternative Credit (or “ADAC”). Investments included in ADAC will be (i) non-investment grade high yield ETF’s and individual bonds and cash (“Liquid Portfolio”) and (ii) co-investments with Private Credit managers and working capital cash (“Private Portfolio”). The following guidelines apply to ADAC:

a. ADAC shall be included in the Special Opportunities / Income Opportunities category.

b. Size and Funding Schedule
   - $500 million funded at inception, initially invested in Liquid Portfolio.
   - Following inception, additional funds will be invested into ADAC through cash transfers to the Liquid Portfolio and capital calls into the Private Portfolio for co-investments, or working capital or organizational expenses for the Private Credit Co-Investment Vehicle.
   - Funding of additional cash transfers to the Liquid Portfolio will be done at no greater than a 1:1 ratio with cumulative Private Portfolio capital calls.
   - Total invested capital of $1,000 million targeted to be funded within twenty-four months of inception.

c. Portfolio Control and Decision Making
   - Private Income team will have discretion over portfolio-wide decisions including: (i) percentage of portfolio invested in Liquid vs. Private Portfolio, (ii) retaining APFC Fixed Income Plus team as manager of the Liquid Portfolio, and (iii) individual investment decisions in the Private Portfolio

d. Liquid Portfolio and Benchmark
   - Liquid Portfolio, initially 100% of ADAC, ultimately scaling down to less than 50%, will be managed by the APFC Fixed Income Plus team at inception.
   - The targeted maximum allocation will be the greater of $750 million and 75% of ADAC NAV.
   - The targeted minimum allocation will be 25% of ADAC NAV.
   - ETF Account within Liquid Portfolio benchmarked to Barclays US High Yield Index (after July 1, 2018 to allow for an initial ramp-up).
   - Individual securities portfolio will favor BB-B over CCC-rated securities and will be benchmarked to the Barclays BB High Yield Index (after July 1, 2018 to allow for an initial ramp-up). A relatively high tracking error to this index will be tolerated with the aim of outperformance over a full market cycle.

e. Private Portfolio and Benchmark
   - Private Portfolio, initially 0% of ADAC, ultimately scaling to greater than 50%, will be managed by the Private Income team
- The targeted maximum allocation will be 75% of ADAC NAV.
- The targeted minimum allocation will be 25% of ADAC NAV (after initial, twenty-four month ramp-up).
- Private Portfolio will target having a minimum of $100 million committed within twelve months of inception and a minimum of $250 million within twenty-four months of inception.
- Co-investment opportunities will be primarily sourced through existing managers.
- Maximum commitment per co-investment of $75 million without Executive Director written approval.
- Private Portfolio will be benchmarked to CPI + 500 bps.

f. Overall ADAC Portfolio Benchmarks
- Barclays US High Yield Index (relatively high tracking error to this index will be tolerated with the aim of outperformance over a full market cycle).
- A long-term target of CPI + 400 bps.

g. Tenor and Termination
- This is an evergreen strategy with realized gains re-invested, which means the size of ADAC will be equal to invested capital, plus cumulative realized/unrealized gains, minus cumulative realized/unrealized losses.
- The CIO, with Executive Director consent, may choose to invest additional capital at any time.
- The CIO, with Executive Director consent, may choose to terminate the strategy at any time. Upon termination, available cash will be distributed from ADAC, the Liquid Portfolio will be sold within 180 days, and the Private Portfolio will cease making new commitments (with the exception of follow-on investments to existing portfolio holdings and investments to which a written commitment to invest has already been executed; both to be pursued only with written consent of the Executive Director) and will distribute proceeds upon any partial or full realization of existing investments.

IV.C. Absolute Return

i. Investment Process
Absolute Return investments shall only be consummated following (i) a search process conducted by one of APFC’s Absolute Return consultants or APFC’s general consultant or (ii) upon the written analysis of a qualified consultant retained to evaluate a specific proposed investment. All investments, in addition to the preceding process, shall only be consummated following an independent review of the manager’s operational processes (also known as “Operational Due Diligence”).
ii. **Diversification**

Staff shall construct the Absolute Return portfolio with a level of diversification consistent with other institutional investors in the asset class, specifically:

a. **Manager Diversification**

To achieve prudent diversification, the portfolio shall (i) at any given time be limited to investments with 10 to 25 managers, and (ii) at the time of investment no individual fund shall represent more than 10% of the target Absolute Return allocation.

b. **Strategy Diversification**

Staff shall manage the portfolio with a mix of the three primary strategies defined in the Policy & Procedures: (i) 0-75% of the portfolio shall be invested with Relative Value Managers, (ii) 0-50% of the portfolio shall be invested with Event Driven Managers, (iii) 0-75% of the portfolio shall be invested with Directional/Tactical/Opportunistic Managers.

The diversification limits outlined above may be exceeded with written approval of the Executive Director.

iii. **Liquidity**

Staff shall manage the liquidity terms and portfolio composition such that they can rely on contractual terms to liquidate 50% of the NAV of the portfolio, at any given time, within a 12-month period. The legacy illiquid fund-of-fund exposures (lock-up funds, private credit exposures, and side-pocket exposures) shall not be included for purposes of applying this test.

The liquidity limits outlined above may be exceeded with written approval of the Executive Director.

VI. **Derivatives**

The following guidelines should be adhered for risk management purposes:

a. APFC risk management staff will monitor and report on the use of derivatives based on the following:
   a. Monthly reconciliation of managers’ derivatives reports with custodian positions in derivatives;
   b. Monthly review of Managers’ use of derivatives relative to their own policies and guidelines;
   c. Monthly reports of risk model results (for fixed income only):
      i. Contribution to effective duration and effective convexity, by portfolio, of all positions; and
      ii. Economic exposures and risk characteristics of derivatives.
d. A monthly statement that all portfolios are in compliance with the Policy & Procedures and these guidelines, and a description of any instances of non-compliance and their disposition; and

e. An annual report that compares Fund risks with and without the derivatives.

b. Permitted derivatives include those listed in Section VI.B. of the Policy & Procedures as well as others allowed in the regulations.

The following guidelines should be adhered to for risk management purposes when investing in derivatives in the Public Equities and Fixed Income Plus Portfolios:

a. The net of long and short dollar exposures to assets or currencies, whether derived from physical or derivative securities, must be less than or equal to the dollar market value of the portfolio, except for very small, inadvertent, or temporary amounts that occur in the normal course of portfolio management or authorized by the Executive Director;

b. The gross dollar exposures of the portfolio from physical and derivative securities (futures, options, swaps) cannot exceed 300% of the market value of the aggregate underlying portfolio at all times unless authorized by the Executive Director;

c. The CIO may impose further limits on the use of derivatives so that derivative notional values are not only constrained by their contribution to portfolio risk factors (such as beta, regional or industry exposure) but also with consideration to: liquidity, counterparty credit risk, pricing transparency, and model risk. Thus derivative use may be limited even if other portfolio risk limits are not breached.

d. If derivatives are used by a manager to actively manage currency exposure, net short exposure to any single currency remains within limits established for that manager’s strategy.

VII. Risk Management and Oversight

The following tables illustrate the guidelines to be followed in terms of active risk limits:

<table>
<thead>
<tr>
<th>Table VII.2. Relative Risk Guidelines – VaR (Value-at-Risk)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category</strong></td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>Portfolio</td>
</tr>
<tr>
<td>Fixed Income Plus</td>
</tr>
<tr>
<td>Public Equities</td>
</tr>
</tbody>
</table>
Table VII.3. Relative Risk Guidelines – Tracking Error

<table>
<thead>
<tr>
<th>Category</th>
<th>Green Zone (CIO)</th>
<th>Yellow Zone (ED)</th>
<th>Red Zone (Board)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio</td>
<td>0 to 400 bps*</td>
<td>400 to 600 bps</td>
<td>&gt;600 bps</td>
</tr>
<tr>
<td>Public Equities**</td>
<td>0 to 350 bps</td>
<td>350 to 500 bps</td>
<td>&gt;500 bps</td>
</tr>
<tr>
<td>Fixed Income Plus</td>
<td>0 to 350 bps</td>
<td>350 to 500 bps</td>
<td>&gt; 500 bps</td>
</tr>
</tbody>
</table>

* bps = basis points (where 100bps = 1%)
** Compared to the MSCI All Country Investable Market Equity Index

a. Scenario Analysis: APFC staff will look at a range of scenarios to evaluate mark-to-market impacts on the portfolio. These scenarios might include (illustrative):
   a. Slow Deflation
   b. Rapid Deflation
   c. Chinese Market Crash
   e. US Downgrade (2011)
   f. 2008 Market Crash
   g. 2007 Credit Crisis

b. Stress Testing: APFC staff will analyze how specific market shocks might affect the Total Fund. Sample shocks to be analyzed are (illustrative):
   a. Global Stock Market Crash
   b. U.S. Stock Market Crash
   c. Euro Stock Market Crash
   d. Japan Stock Market Crash
   e. U.S. Interest Rates Risk
   f. Euro Interest Rates Rise
   g. Japan Interest Rates Rise
   h. U.S. Inflation Rise
   i. Euro Inflation Rise
   j. U.S. Credit Spread Widening
   k. Euro Credit Spread Widening
   l. U.S. Dollar Weakens
   m. VIX Volatility Spike
   n. Oil Crash

c. The following table provides the guidelines regarding private market asset holdings:
Table VII.4. Private Investments Limits

<table>
<thead>
<tr>
<th>Category</th>
<th>Green Zone (CIO)</th>
<th>Yellow Zone (ED)</th>
<th>Red Zone (Board)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Assets</td>
<td>35 to 50%</td>
<td>25% to 35% &amp; 50% to 55%</td>
<td>&lt;25% &amp; &gt;55%</td>
</tr>
</tbody>
</table>

d. The following table provides the guidelines regarding future commitments:

Table VII.5. Future Commitment Limits

<table>
<thead>
<tr>
<th>Category</th>
<th>Green Zone (CIO)</th>
<th>Yellow Zone (ED)</th>
<th>Red Zone (Board)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future Commitments</td>
<td>&lt; 20%</td>
<td>20% to 25%</td>
<td>&gt;25%</td>
</tr>
</tbody>
</table>

e. Counterparty Exposures: all counterparties should have at least a AAA credit rating. APFC staff should also make sure no manager is funded over 5% of the Total Fund NAV.

f. Liquidity management should be analyzed routinely by APFC Staff as such:
   a. A monthly assessment of Total Fund liquidity
   b. A monthly review and reporting of liquidity ratios
   c. A quarterly review of liquidity scenario analysis to be presented to the Board of Trustees
   d. An annual assessment of the conditions required to result in a liquidity breach event

g. Risk Management Compliance Cure Periods and Remedies should follow these guidelines:

The Green Zone Operating Range (“Green Zone”) concept is designed to indicate the Board-approved operating risk limits.

1. The Green Zone is the Board-approved Chief Investment Officer (“CIO”) operating range.
   a. The portfolio must be within the Green Zone at least 80% of the calendar year; the Board must approve exceptions.

2. The Yellow Zone is the Board-approved Executive Director (“ED”) operating range.
   a. The Chief Financial Officer (“CFO”) will notify the CIO and ED promptly upon entry into a Yellow Zone.
   b. The CIO will respond by requesting ED approval to operate within the Yellow Zone.
   c. With ED approval, the CIO may operate within a Yellow Zone for up to 90 consecutive days or, if longer, until the next Board meeting following entry into a Yellow Zone.
   d. The CFO will notify the Board (i) when approaching 90 days of operating within a Yellow Zone and (ii) monthly thereafter.
   e. Following Board notification, a Trustee may request in writing a meeting to discuss an extension to continue operating within the Yellow Zone.
f. The Board may grant the CIO and ED an extension to continue operating within a Yellow Zone. Between Board meetings, unless a Trustee requests a meeting, the Board Chair may grant the CIO and ED an extension to continue operating within a Yellow Zone.

3. The Red Zone is the operating range that requires Board approval.
   a. The CFO will notify the Board upon entry into a Red Zone.
   b. The ED will respond to the Board with an action plan.
   c. Absent Board approval, operating within a Red Zone is limited to 30 consecutive days (plus the time needed to notice a Board meeting).
   d. The Board has the authority to approve operating within a Red Zone, beyond 30 days.

Even though the Fund is expected to operate most of the time within the Green Zone, the Fund may periodically be within a Yellow Zone, and there may be times when the Fund will be within a Red Zone. The zones are designed to increase transparency and awareness; they should not be viewed as explicit violations. A historical report showing periods of operating within the Yellow and Red Zones will be included in Board meeting packets.
Exhibit VII.1. Visual Display of Green Zone Concept

Exhibit VII.2. Green Zone Example for Public Equities

Less than 30%

35% to 45%

Greater than 55%

30% to 35%

Board Approved Target Allocation Absolute Return 37%

45% to 55%

Actual Allocation 39%

In Compliance
Appendix B: Internal Investment Managers

This Appendix identifies internal Investment Managers at APFC. The Executive Director may update this Appendix from time-to-time; updates will be provided to the Board at its next regularly scheduled meeting.

<table>
<thead>
<tr>
<th>Name and Title</th>
<th>Asset Class</th>
</tr>
</thead>
</table>
| Fawad Razzaque, Director of Investments, Public Equity  
Youlian Ninkov, Analyst and Trader | Public Equity |
| Jim Parise, Director of Investments, Tradable Income  
Chris Cummins, Senior Portfolio Manager, Fixed Income  
Masha Skuratovskaya, Senior Portfolio Manager, Fixed Income  
Matt Olmsted, Senior Portfolio Manager  
Tom O’Day, Analyst and Trader | Fixed Income Plus |
| Steve Moseley, Director of Investments, Private Equity & Special Opportunities  
Yup Kim, Senior Portfolio Manager | Private Equity & Special Opportunities |
| Marcus Frampton, Director of Investments, Real Estate, Infrastructure & Private Income, Absolute Return  
Jared Brimberry, Senior Portfolio Manager, Private Income  
Rose Duran, Director of Real Estate Investments  
Tim Andreyka, Senior Portfolio Manager, Real Estate | Real Estate, Infrastructure & Private Income, and Absolute Return |
| Valeria Martinez, Director of Investments, Asset Allocation | Asset Allocation Programs |
| Russell Read, Chief Investment Officer | Oversees all Assets Classes |
Appendix C:  Glossary

AAC means the Alaska Administrative Code.
ADA means the Americans With Disabilities Act of 1990.
Advisors and Board Advisors mean the investment professionals who comprise the Board’s Investment Advisory Group.
APFC and Corporation mean the Alaska Permanent Fund Corporation, established under AS 37.13.040.
AS means Alaska Statutes.
BB means Bloomberg.
Board means the Board of Trustees of the APFC.
CMBS means commercial mortgage-backed securities.
CFO means the APFC’s Chief Financial Officer.
CIO means the APFC’s Chief Investment Officer.
Consultant means the Board’s investment consultant(s), not including Board Advisors.
CPI means the Consumer Price Index.
Custodian means the APFC’s custodian.
Days means calendar days.
ED means the APFC’s Executive Director.
FoF means fund-of-funds.
Fund and Permanent Fund mean the Alaska Permanent Fund, established under Article IX, Section 15, of the Alaska Constitution, and described in AS 37.13.010.
IMA means investment management agreement.
Investment Manager and Manager mean investment manager(s) retained by the APFC.
IRR means internal rate-of-return.
Long-Term means over one or more business cycles.
MBS means mortgage-backed securities.
RBM means Strategic Risk Benchmark.
Staff means the APFC Investment staff and, where the context requires, also means or includes the Executive Director and/or other APFC staff.
TE means Tracking Error.
Trustees means the members of the APFC’s Board of Trustees.
VaR means Value at Risk.
Appendix D: Previous Investment Policy Adoption and Amendments

The previous APFC Investment Policy was adopted or amended effective as follows:

Adopted: May 27, 2010
Amended: September 30, 2010 (§14.9 added)
Amended: December 1, 2010 (§9.1 revised; new §11.1 added and prior §§11.1-11.3 and subsections thereunder renumbered; and §18.2.4 revised)
Amended: May 20, 2011 (§18A added)
Amended: September 30, 2011 (§§ 8, 8.2, 8.3, 8.5, 9.2, 9.3.1, 9.4.1, 11.3.1, 15.3, and 15.4 revised)
Amended: December 8, 2011 (§11.3.2 revised)
Amended: February 22, 2012 (§20 revised)
Amended: April 23, 2012 (§§16.3.1 and 16.3.2 revised; and Specific Policy Modifications for Tysons Corner Phase I Project and Mariner Frontier Fund, L.P. added)
Amended: February 27, 2013 (§§ 15.2, 15.3, and 15.4 revised)
Amended: May 22, 2013 (§§9.5.4, 9.5.5,12.4, 12.6, 13.2, 13.3.1, 13.3.3, 14.9.4.10, 16.1.2, 16.1.3, 16.1.4, 16.2, 16.3, 16.3.1, 18A, 23.2, and 23.5 revised; Specific Policy Modification for Mariner Frontier Fund, L.P. revised; Specific Policy Modification for Crestline AK Permanent Fund, L.P. added; and Addendum re Internal Investment Managers added)
Amended: May 23, 2013 (§§ 3.1, 3.3, 5.3, 6, 8 (including Table 8a), 8.1 revised; §8.2 deleted; §§ 8.3-8.5 renumbered (as §§ 8.2-8.4) and newly-renumbered §§ 8.2-8.4 revised; and §§ 9.2, 9.3.1, 9.4.1, 10, 11.3.1, and 22.2 revised)
Amended: February 26, 2014 (§§23.3.1, and 23.2 revised; and Addendum re Internal Investment Managers revisned)
Amended: May 21, 2014 (§14.9.4.10 (including Table 14.9.4.10.1) revised)
Amended: December 10, 2014 (§§ 8, 9.3.1, 11.3.2, 14.2.2, and Table 14.5.4.1revised)
Amended: May 19, 2015 (§§ 15 and 16, including conforming changes in other sections revised)
Amended: September 27, 2016
Amended: December, 2016 (§§ 9, 10 and 12, including conforming changes in other sections revised)

Amended: May 23, 2018, complete re-write of the Policy and Guidelines. Changes to be effective on July 1, 2018.
## Appendix E: Callan’s Capital Markets Projections (2018-2027)

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Performance Index</th>
<th>Target Weight</th>
<th>Target Weight</th>
<th>1-Year Arithmetic</th>
<th>10-Year Geometric*</th>
<th>Standard Deviation</th>
<th>Projected Yield</th>
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<tbody>
<tr>
<td><strong>Public Equities</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>39.0%</td>
<td>8.60%</td>
<td>7.05%</td>
<td>18.85%</td>
<td>2.60%</td>
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<tr>
<td>Global Equity</td>
<td>MSCI ACWI - IMI</td>
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<tr>
<td><strong>Fixed Income Plus</strong></td>
<td></td>
<td>22.0%</td>
<td>4.10%</td>
<td>4.05%</td>
<td>5.00%</td>
<td>4.00%</td>
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<tr>
<td>Money Markets</td>
<td>90-Day T-Bill</td>
<td>5.0%</td>
<td>1.1%</td>
<td>2.25%</td>
<td>2.25%</td>
<td>0.90%</td>
<td>2.25%</td>
</tr>
<tr>
<td>TIPS</td>
<td>Barclays TIPS</td>
<td>5.0%</td>
<td>1.1%</td>
<td>3.10%</td>
<td>3.00%</td>
<td>5.25%</td>
<td>3.30%</td>
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<tr>
<td>US Fixed Income</td>
<td>Barclays Aggregate</td>
<td>25.0%</td>
<td>5.5%</td>
<td>3.05%</td>
<td>3.00%</td>
<td>3.75%</td>
<td>3.45%</td>
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<tr>
<td>US Investment Grade Credit</td>
<td>Barclays Credit</td>
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<td>5.5%</td>
<td>3.65%</td>
<td>3.55%</td>
<td>5.05%</td>
<td>4.00%</td>
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<tr>
<td>Non-US Fixed Income</td>
<td>Barclays Global AggregateXUS</td>
<td>10.0%</td>
<td>2.2%</td>
<td>1.80%</td>
<td>1.40%</td>
<td>9.20%</td>
<td>1.90%</td>
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<td>Emerging Market Debt</td>
<td>Barclays EMD Hard Currency</td>
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<td>4.50%</td>
<td>9.60%</td>
<td>4.90%</td>
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<tr>
<td>Global High Yield</td>
<td>Barclays Global High Yield</td>
<td>10.0%</td>
<td>2.2%</td>
<td>5.20%</td>
<td>4.75%</td>
<td>10.35%</td>
<td>5.40%</td>
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<td>Global REITs</td>
<td>S&amp;P Global REIT</td>
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<td>2.2%</td>
<td>8.25%</td>
<td>6.40%</td>
<td>20.30%</td>
<td>4.30%</td>
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<tr>
<td>Global Listed Infrastructure</td>
<td>S&amp;P Global Listed Infrastructure</td>
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<td>1.1%</td>
<td>7.65%</td>
<td>6.40%</td>
<td>17.25%</td>
<td>4.00%</td>
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<tr>
<td><strong>Private Equity/Growth Opps</strong></td>
<td></td>
<td>11.0%</td>
<td>10.60%</td>
<td>8.50%</td>
<td>22.00%</td>
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<td>Private Equity</td>
<td>Cambridge Private Equity</td>
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<td>10.60%</td>
<td>8.50%</td>
<td>22.00%</td>
<td>0.00%</td>
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<tr>
<td><strong>Private Real Estate</strong></td>
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<td>10.0%</td>
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<td>5.75%</td>
<td>16.35%</td>
<td>4.75%</td>
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<tr>
<td>Real Estate</td>
<td>NCREIF Total Index</td>
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<td>6.90%</td>
<td>5.75%</td>
<td>16.35%</td>
<td>4.75%</td>
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<tr>
<td><strong>Private Infra/Credit/Income</strong></td>
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<td>6.0%</td>
<td>6.65%</td>
<td>5.75%</td>
<td>14.50%</td>
<td>5.50%</td>
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<tr>
<td>Private Infrastructure</td>
<td>FTSE Global Listed Infrastruc</td>
<td>60.0%</td>
<td>3.6%</td>
<td>6.45%</td>
<td>5.75%</td>
<td>13.00%</td>
<td>5.00%</td>
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<td>Private Credit</td>
<td>Barclays Global High Yield</td>
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<td>6.95%</td>
<td>5.75%</td>
<td>16.50%</td>
<td>6.25%</td>
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<tr>
<td>Absolute Return</td>
<td></td>
<td>6.0%</td>
<td>5.35%</td>
<td>5.05%</td>
<td>9.15%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>Hedge Funds</td>
<td>HFRI Total HFOF Universe</td>
<td>6.0%</td>
<td>5.35%</td>
<td>5.05%</td>
<td>9.15%</td>
<td>0.00%</td>
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</tr>
<tr>
<td><strong>Asset Allocation</strong></td>
<td></td>
<td>6.0%</td>
<td>7.15%</td>
<td>6.55%</td>
<td>12.55%</td>
<td>3.00%</td>
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<tr>
<td>Cash Equivalents</td>
<td>90-Day T-Bill</td>
<td>33.3%</td>
<td>2.0%</td>
<td>2.25%</td>
<td>2.25%</td>
<td>0.90%</td>
<td>2.25%</td>
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<tr>
<td>Multi Asset Class/ECIO</td>
<td>APFC Total Fund Target</td>
<td>66.7%</td>
<td>4.0%</td>
<td>7.15%</td>
<td>6.55%</td>
<td>12.55%</td>
<td>3.00%</td>
</tr>
<tr>
<td><strong>Inflation</strong></td>
<td>CPI-U</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.25%</td>
</tr>
</tbody>
</table>

| **Total Fund**               |                   | 100.0%        | 7.15%         | 6.55%             | 12.55%            | 3.00%              |                 |