

Kayne Anderson Midstream/Energy Fund Announces Approval of Stock Repurchase Program of up to \$20 Million of Common Stock

Houston, TX – March 28, 2019 – Kayne Anderson Midstream/Energy Fund, Inc. (NYSE: KMF) (the “Fund”) announced today that its Board of Directors has approved a program to purchase up to \$20 million of the Fund's common stock. The Board has decided to implement the share repurchase program because they believe at its current discount, KMF represents a compelling investment opportunity. The Board also expects the repurchase program will increase net asset value (“NAV”) per share through the accretive nature of the purchases, an associated benefit of the program. As of March 27, 2019 the Fund's common stock was trading at a 14.0% discount to NAV.

The repurchase program will continue until the earlier of (i) the repurchase of \$20 million of common stock or (ii) September 30, 2019. The Fund will have discretion to authorize its agents to make purchases in the open market when shares are trading at a discount of at least 8% to the Fund's NAV per share.

Kevin McCarthy, Chief Executive Officer of the Fund, stated, "We believe the purchase of shares at a substantial discount to NAV represents an attractive investment opportunity for KMF. At KMF's current discount levels, stock repurchases are accretive on a NAV per share basis."

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There is no assurance that the Fund will purchase shares at any specific discount levels or in any specific amounts. The Fund's repurchase activity will be disclosed in its stockholder report for the relevant fiscal period. There is no assurance that the market price of the Fund's shares, either absolutely or relative to NAV, will increase as a result of any share repurchases, or that the program will enhance shareholder value over the long-term.

Kayne Anderson Midstream/Energy Fund, Inc. is a non-diversified, closed-end management investment company registered under the Investment Company Act of 1940, as amended, whose common stock is traded on the NYSE. KMF's investment objective is to provide a high level of total return with an emphasis on cash distributions to its stockholders by investing at least 80% of its total assets in securities of companies in the Midstream/Energy Sector, consisting of: (a) Midstream Master Limited Partnerships (“MLPs”), (b) Midstream Companies, (c) Other MLPs and (d) Other Energy Companies. KMF anticipates that the majority of its investments will consist of investments in Midstream MLPs and Midstream Companies. See Glossary of Key Terms in the Fund's quarterly reports for a description of these investment categories and for the meaning of capitalized terms.

This press release shall not constitute an offer to sell or a solicitation to buy, nor shall there be any sale of any securities in any jurisdiction in which such offer or sale is not permitted. Past performance is not a guarantee of future results. Current performance may be lower or higher than that shown based on market fluctuations from the end of the reported period. Nothing contained in this press release is intended to recommend any investment policy or investment strategy or take into account the specific objectives or circumstances of any investor. Please consult with your investment, tax or legal adviser regarding your individual circumstances prior to investing.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS: *This press release contains “forward-looking statements” as defined under the U.S. federal securities laws. Generally, the words “believe,” “expect,” “intend,” “estimate,” “anticipate,” “project,” “will” and similar expressions identify forward-looking*

statements, which generally are not historical in nature. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ from the Fund's historical experience and its present expectations or projections indicated in any forward-looking statements. These risks include, but are not limited to, changes in economic and political conditions; regulatory and legal changes; MLP industry risk; leverage risk; valuation risk; interest rate risk; tax risk; and other risks discussed in detail in the Fund's filings with the SEC, available at www.sec.gov. You should not place undue reliance on forward-looking statements, which speak only as of the date they are made. The Fund undertakes no obligation to publicly update or revise any forward-looking statements made herein. There is no assurance that the Fund's investment objectives will be attained.

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