UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) —March 14, 2011

Plains All American Pipeline, L.P.

(Exact name of registrant as specified in its charter)

DELAWARE

(State or other jurisdiction of incorporation)

1-14569

(Commission File Number)

76-0582150

(IRS Employer Identification No.)

333 Clay Street, Suite 1600, Houston, Texas 77002

(Address of principal executive offices) (Zip Code)

713-646-4100

(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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Date: March 14, 2011

Item 7.01. Regulation FD Disclosure

In accordance with General Instruction B.2. of Form 8-K, the following information shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act except as shall be expressly set forth by specific reference in such a filing.

Plains All American Pipeline, L.P. has posted its 2010 Chairman and President's Letter on its website. The Letter is available for viewing under the Investor Relations tab at www.PAALP.com.

Item 9.01. Financial Statements, and Exhibits

(d) Exhibits. The following exhibit is furnished and not filed as part of this Current Report on Form 8-K:

99.1 Letter from the Chairman and President dated March 14, 2011.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

PLAINS ALL AMERICAN PIPELINE, L.P.

By: PAA GP LLC, its general partner

By: Plains AAP, L.P., its sole member

By: Plains All American GP LLC, its general partner

By: /s/ Tim Moore

Name: Tim Moore Title: Vice President



March 14, 2011

Dear Fellow Unitholders:

2010 Chairman & President's Letter

2010 marked another very active and productive year for our Partnership. We delivered operating and financial results above the high end of our guidance range; increased distributions paid per limited partner unit by 3.7%; completed the Initial Public Offering ("IPO") of our natural gas storage business; and invested \$355 million in organic growth projects and approximately \$410 million in acquisitions to further position PAA for continued growth. These accomplishments combined with the overall strength of the Master Limited Partnership ("MLP") equity markets provided PAA's unitholders with an approximate 26% total return for 2010, which was superior to the 15% and 14% total returns delivered by the S&P 500 and the Dow Jones Industrial Average, respectively. The Alerian MLP index posted an approximate 36% total return for the year.

2010 Business Climate

In general, the business environment in 2010 was much more favorable than the prior two years. The U.S. economy stabilized from the adverse conditions experienced in 2008 and 2009 and debt and equity capital was widely available on attractive terms. Conditions also improved for the energy sector as demand for energy and sources of supply both showed marked improvement.

U.S. petroleum consumption rates began to climb from the low points reached in 2008 and 2009, although they are still about 9% below 2005 to 2007 average levels. On the supply side, technological improvements and favorable crude oil pricing spurred an increase in domestic crude oil drilling and production, which has led to a number of infrastructure development opportunities for the next few years. Additionally, several new crude oil pipeline projects servicing Canadian production created opportunities to expand certain of our crude oil terminals in 2010 and 2011.

PAA's Performance — 2010 in Review

At the beginning of each year, we set forth specific goals that guide our activities and provide a framework for our stakeholders to measure our performance. We have included a recap of our 2010 goals and achievements as Exhibit A of this letter. The report card is decidedly positive as we achieved each of our targeted goals. In summary, 2010 can be

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characterized as a year of solid execution, continued growth, and preparation for future growth/performance. A more detailed discussion of PAA's performance follows.

The Partnership delivered total 2010 adjusted EBTIDA of \$1.1 billion, which exceeded the mid-point of our beginning-of-the-year guidance by over \$60 million, even after excluding the benefit of acquisitions not included in such guidance. We also delivered solid results relative to our quarterly guidance, completing the 36th consecutive quarter of delivering results in line with or ahead of guidance. Additionally, we paid \$3.76 per unit in distributions during 2010, a 3.7% increase over 2009, while generating 111% distribution coverage.

Throughout the year, we remained focused on executing the opportunities before us and preparing for the future. A key element of our 2010 plan was to optimize the structure and performance of our natural gas storage business. To implement that strategy, in May 2010 we completed the IPO of PAA Natural Gas Storage, L.P. (NYSE: PNG), in which we sold a minority limited partner interest in PNG to the public, while retaining the general partner interest, incentive distribution rights and a majority limited partner interest in the newly formed master limited partnership. PNG will continue to be consolidated into PAA's financial statements, but its separately traded units provide us with a lower and more competitive cost of capital to be able to participate in acquisition activities within the natural gas storage sector.

During 2010, we successfully deployed an aggregate of approximately \$765 million in growth projects — investing \$355 million in expansion projects and approximately \$410 million on acquisitions. Our organic growth capital program was primarily focused on the build out of our strategically located market hub terminal facilities. During the year, we completed or substantially completed expansions at our storage and terminal facilities located in Cushing, Oklahoma; St. James, Louisiana; and Patoka, Illinois; as well as our natural gas storage facility in Pine Prairie, Louisiana. We also completed expansion projects on various assets in West Texas, the Rockies and Midcontinent areas.

We completed six complementary acquisitions during 2010, several of which were "bolt-on" type transactions. The assets acquired included the Robinson Lake crude oil pipeline and certain crude oil gathering assets located in the Bakken producing region, a 34% interest in White Cliffs Pipeline LLC, an additional 11% interest in the Capline pipeline and various other assets that are well positioned relative to our existing asset portfolio.

Consistent with our plans to utilize PNG as an acquisition vehicle, on December 29, 2010, PNG announced it had entered into definitive agreements to acquire Southern Pines Energy Center for approximately \$750 million. Southern Pines is a well-connected, high-performance salt-cavern storage facility located in Greene County, Mississippi and is favorably positioned to service the growing gas-fired power generation demand in the Southeastern region of the United States. We expect to substantially increase the storage capacity at Southern Pines over the next five years on attractive economic terms. The asset is highly contracted for the next several years and provides an ideal complement to PNG's existing growth portfolio. The acquisition was completed in February 2011.

Consistent with our well established financial growth strategy, throughout 2010 we remained vigilant in ensuring prudent financing of our growth and maintaining a high level of liquidity and resulting financial flexibility. In May, we raised approximately \$270 million in net equity proceeds from the IPO of PNG and established a separate \$400 million revolving credit facility for PNG. In July, we raised approximately \$400 million from the sale of 5-year senior notes at a rate of 3.95%. We used a portion of these proceeds to retire \$175 million of 6.25% senior notes due in 2015 for an annual interest savings of approximately \$4 million. In October, we renewed our \$500 million 364-day committed hedged inventory facility, and in November we completed a public offering of PAA common units, generating net proceeds of approximately \$300 million. In early January 2011, we entered into a \$500 million 364-day liquidity facility. As a result of this activity, even after investing approximately \$765 million in organic growth projects and acquisitions, we ended the year within our targeted credit metrics and with approximately \$1.4 billion of aggregate pro forma committed liquidity.

Looking back, it is worth noting that over the past 4 years, our management team, asset base and business model have successfully navigated through and grown during a period burdened by significant, real life stress tests. During this period, PAA maintained a solid capital structure and high level of liquidity, delivered results in line with or ahead of our public guidance and increased our quarterly limited partner distribution rate by approximately 27%.

Looking Forward

Based on the midpoint of our 2011 guidance range, we are forecasting an 11% increase in adjusted EBITDA and a 6% increase in distributable cash flow over 2010 comparative levels. The primary drivers for these increases are the investments we have made over the last several years. Based on that forecasted performance, we have established a goal for 2011 to increase our November 2011 distribution per limited partner unit by 4% to 5% over the distribution paid in November 2010 while maintaining healthy distribution coverage.

A notable aspect of our expected distributable cash flow for 2011 is the fact that effective January 1, 2011, all of our Canadian activities became taxable. The aggregate incremental taxes in 2011 over 2010 levels are expected to total approximately \$30+ million. Although the impact of this additional tax burden will result in a direct decrease in distributable cash flow, as a result of this change, our unitholders will no longer be required to file a Canadian tax return. Moreover, the majority of the taxes we pay in 2011 will generate a beneficial foreign tax credit for our equity holders that could total as much as \$0.10 per unit or more.

During 2011 we plan to invest approximately \$550 million on expansion capital projects, a 55% increase over our 2010 capital program. We are also working on several additional projects that may enable us to expand the 2011 capital program later in the year. These capital investments will primarily drive our growth in 2012 and beyond and will be augmented by our future acquisition activities.

We remain excited about PAA's future. PAA plays a critical role in providing essential midstream services to U.S. producers and refiners as well as our other customers, and we

believe the outlook for PAA's continued growth is favorable. We have incorporated this outlook into our multi-year target to achieve an annual average distribution growth of 3% to 5% and we are on track to deliver in this regard.

It is worth noting that we remain committed to a conservative financial growth strategy, which includes maintaining a high level of liquidity and funding our capital investments with approximately 55% equity and excess cash flow and 45% debt. We believe our existing capital structure, our low risk business profile, and our proven discipline of prudently financing our growth are not only consistent with an investment grade rating, but also warrant further improvement of our existing investment grade rating.

Overall, we are pleased with our performance in 2010 and the Partnership's positioning as we enter 2011. Our 2011 goals are set forth in Exhibit B. We look forward to updating you on our progress on these goals and other relevant matters throughout the year.

Finally, we appreciate the trust you place in PAA — both to generate attractive returns and to protect your investment. Accordingly, despite the encouraging aspects of the current environment and PAA's overall solid positioning, we continue to conduct multiple scenario analyses and incorporate them into our planning activities as considered appropriate. Our intent is to ensure that our business model performs appropriately and to minimize the adverse impacts of potential downturns in the energy sector, the economy, or the financial markets. As a result, from time to time we may — as we have in the past — take certain precautionary measures, including some that have an "insurance cost" and thus may moderate our economic returns. On balance, we believe the resulting low risk profile and still attractive all-in return provided by PAA's current distributions and forecasted distribution growth potential provides an attractive risk/reward proposition for our current and potential investors.

On behalf of Plains All American Pipeline, our board of directors, and our 3,500 loyal and dedicated employees, we sincerely thank you for your continued support.

Greg L. Armstrong Chairman & CEO

Harry N. Pefanis President & COO

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Exhibit "A"

2010 Goals & Achievements

- 1. Deliver baseline operating and financial performance in line with our guidance;
 - ü Delivered results in line with guidance in each quarter and exceeded original midpoint adjusted EBITDA guidance for the full year by \$66 million (+6%).
- 2. Successfully execute our 2010 capital program, and set the stage for continued growth in 2011 and beyond;
 - ü Invested \$355 million in 2010 projects executed on-time and within budget;
 - ü Announced 2011 Capital Program of \$550 million, a 55% increase over 2010.
- 3. Continue to pursue strategic and accretive acquisitions; and
 - ü Completed 6 complementary acquisitions for a total of approximately \$410 million;
 - ü PNG, our majority owned subsidiary, executed a definitive agreement to acquire Southern Pines for approximately \$750 million.
- 4. Increase our annualized distribution level to \$3.80 per unit by November 2010.
 - ü Goal achieved; actual November 2010 distribution was \$3.80;
 - ü Increased distributions per unit paid in 2010 by 3.7% over 2009 distributions paid per unit.

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Exhibit "B"

2011 Goals

- 1. Deliver baseline operating and financial performance in line with our guidance;
- 2. Successfully execute our 2011 capital program, and set the stage for continued growth in 2012 and beyond;
- 3. Continue to pursue strategic and accretive acquisitions; and
- 4. Increase our November 2011 annualized distribution level by approximately 4% to 5% over the November 2010 annualized distribution level.

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