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

DIVISION OF
CORPORATION FINANCE

Mail Stop 4720

November 4, 2016

Via Email
John P. Durie
Chief Financial Officer
Green Bancorp, Inc.
4000 Greenbriar
Houston, Texas 77098

Re: Green Bancorp, Inc.
Form 10-K for Fiscal Year Ended December 31, 2015
Filed March 30, 2016
Form 10-Q for Fiscal Quarter Ended June 30, 2016
Filed August 12, 2016
Form 2.02, 9.01 8-K
Filed October 28, 2016
File No. 001-36580

Dear Mr. Durie:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-K for the Year Ended December 31, 2015

Notes to Consolidated Financial Statements

Note 6. Loans, page 105

1. You disclose in a Form 8-K report filed on July 28, 2016 that you implemented the Managed Asset Reduction Strategy (MARS) during 2016 to reduce your exposure to energy loans. You disclose in this Form 8-K report that you plan to substantially eliminate your energy loan exposure by the first quarter of 2017. Loans are classified as held-for sale when management has positively determined that the loans will be sold in the foreseeable future

and you have the ability to do so according to your accounting policy for loans held-for-sale on page 93 of your Form 10-K report. Since you have already commenced the sale of these loans and you have informed your borrowers of your loan disposition strategy based on disclosures in your Form 8-K report, please tell us how you considered the held-for-sale criterion in ASC 205-20-45-1E for your unsold energy loan portfolio.

2. Please revise future filings to present all credit quality metrics (including impaired loans starting on page 111, credit risk profile starting on page 112 and allowance for loan loss activity starting on page 115) by originated loans, acquired loans using ASC 310-20 accounting and acquired credit impaired loans using ASC 310-30 accounting to provide a consistent presentation of your credit quality metrics. Please also ensure that you provide a similarly consistent discussion and analysis of the loan portfolio in your MD&A.

Note 18. Disclosures About Fair Value of Financial Instruments, page 127

3. Please tell us, and revise future filings, to include the disclosure requirements of ASC 820-10-50-2.bbb, specifically quantitative information about the significant unobservable inputs used in the fair value measurement for fair value measurements categorized within Level 3 of the fair value hierarchy for impaired loans and other real estate owned. Refer to ASC 820-10-55-103 for a proposed template for disclosing this information in future filings.

Form 10-Q for the Quarterly Period Ended June 30, 2016

Notes to Interim Condensed Consolidated Financial Statements

Note 11. Deposits, page 32

4. Brokered deposits have increased in recent periods, from $5.7 million at December 31, 2014 to $93.6 million at December 31, 2015 to $129.8 million at June 30, 2016. Please tell us, and revise future filings, to disclose the risks related to the increase in brokered deposits and discuss how you manage these risks.

Form 8-K Filed October 28, 2016

Exhibit 99.1

5. When computing the non-GAAP ratio ‘allowance for loan losses to total loans excluding acquired loans’, please tell us why you did not exclude the allowance for loan losses applicable to acquired loans and instead included the full allowance for loan losses.

6. You make Non-GAAP adjustments to remove “one-time acquisition expenses” from several selected metrics starting on page 18. In this regard, we note that you have completed five

acquisitions since 2010 and two acquisitions in the past two years. You disclose in the Risk Factor on page 26 in the December 31, 2015 10-K that you will continue to pursue a strategy that includes acquisitions. You also disclose in your footnotes to the December 31, 2015 10-K that acquisitions are an integral part of your growth strategy. Based on these disclosures removal of "one-time acquisition expenses" may be inconsistent with the updated Compliance and Disclosure Interpretations issued on May 17, 2016. Please review this guidance when preparing your next earnings release.

7. You disclose on page 101 in the December 31, 2015 10-K that your acquisition expenses are primarily in the categories of data processing, professional and regulatory fees, salaries and benefits, occupancy, software licenses and maintenance, marketing and other. Please tell us the nature and amount of the "one-time acquisition expenses" that you adjusted for in your Non-GAAP financial measure. Please also tell us whether the expenses in each of these categories are normal recurring operating expenses or non-recurring operating expenses.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

You may contact Dave Irving at (202) 551-3321 or me at (202) 551-3752 if you have questions.

Sincerely,

/s/ Gus Rodriguez

Gus Rodriguez
Accounting Branch Chief
Office of Financial Services