



January 13, 2016

Mr. Stuart McArthur
Town Manager
Town of Parachute, Colorado

Re: Town of Parachute – Economic and Fiscal Impacts of Retail Marijuana

Dear Mr. McArthur:

The Town of Parachute, Colorado (Town) retained BBC Research & Consulting (BBC) to conduct an economic and fiscal impact assessment of retail marijuana operations in the Town. This letter report summarizes the findings of the economic and fiscal modeling process, and documents the assumptions used in the analyses.

BBC utilized a combination of sources to inform the methodologies and assumptions employed in the analyses, including third-party research and studies, internal data, and interviews with retail marijuana business owners and operators. Given the inherent variability in input/assumption values observed throughout the emerging marijuana industry, BBC constructed lower, midpoint, and upper bound estimates where appropriate. This report also includes a discussion of Parachute's opportunity to establish a cultivation, manufacturing, distribution, and ancillary business center for the industry in Colorado.

Summary of Findings

BBC estimates that retail marijuana sales will generate between \$90,000 and \$225,000 in annual sales tax revenue depending upon retail dispensaries' market capture rate of regional and I-70 (i.e. highway) customers. A 10,000 square foot cultivation facility is projected to generate about \$150,000 in excise tax revenue on unprocessed retail marijuana. Retail marijuana businesses will also generate increased annual property tax revenues and contribute one-time revenues through construction use-tax, development fees, and initial licensing fees. For example, a newly constructed 10,000 square foot cultivation facility could generate about \$53,000 in one-time fees and increase Town property tax collections by \$3,650 per year on a currently vacant parcel.

An average 10,000 square foot cultivation facility is likely to employ about fifteen (15) full-time employees and a 5,000 square foot manufacturing facility is estimated to employ eighteen (18) full-time employees. Retail dispensaries in Parachute are estimated to employ a total of seventeen (17) to forty-three (43) full-time employees (aggregated Town-level), with actual

employment depending upon number of retail dispensaries in operation, overall market activity, and annual retail sales. Figure 1 presents an overview of the study's municipal revenue and job creation findings. Lower and upper bound values are presented where appropriate (see report section for midpoint estimate).

Figure 1
Summary of Municipal Revenues and Jobs Supported

Town Revenue Source	Retail Dispensaries (1)	Cultivation (10,000 Sq Ft Facility)	Manufacturing (5,000 Sq Ft Facility)
Aggregated Town-Level			
Annual Retail Sales Tax (2)	\$88,111 - \$226,708	-	-
Individual Facility-Level			
Annual Excise Tax	-	\$153,247	-
Annual Property Tax - Marginal Increase (3)	\$641	\$2,832 - \$3,658	\$1,308 - \$1,514
Annual Licensing Fee	\$2,000	\$2,000	\$2,000
One-Time Revenues (4)	\$9,863	\$23,250 - \$53,146	\$13,406 - \$26,386
Reporting Level	Aggregated Town-Level	Facility-Level	Facility-Level
Jobs Supported (FTE)	17 - 43	15	18

Note: (1) Due to construction of the economic and fiscal model, annual retail sales revenue and supported jobs for retail marijuana dispensaries is aggregated and reported at the municipal (Town of Parachute) level.

(2) Includes both Town of Parachute sales tax revenue and the State sales tax redistribution amount.

(3) These values represent the marginal increase over existing annual property tax payment amounts, not the total property tax payment. Includes real and personal property tax payments.

(4) One-time revenues include construction use-tax, development fees, and initial licensing fees (Town of Parachute directly collected fee and State application fee component paid to municipality).

Source: BBC Research & Consulting.

Background

In the 2012 election, Colorado voters approved Amendment 64, a Colorado constitutional amendment that allows for the licensing of retail marijuana cultivation facilities, testing facilities, product manufacturing facilities, and retail storefronts. Amendment 64 also allows for local governments to prohibit the operation of retail marijuana businesses within its jurisdiction. Parachute's Board of Trustees initially opted to prohibit retail marijuana activity within the Town through the adoption of Town Ordinance No. 656 in September 2013.

However, given the combination of retail marijuana's positive fiscal impact on municipalities and the downturn in the natural gas industry, which Parachute relies heavily upon for Town revenues and employment, the Trustees repealed the prohibition of retail marijuana in Town Ordinance No. 683 in June 2015. In addition to allowing retail marijuana business activity, Town Ordinance No. 683 establishes regulations for operating a retail marijuana establishment in the Town.

Following the allowance of retail marijuana establishments, multiple parties interested in opening retail marijuana storefronts, manufacturing/processing and cultivation facilities have approached the Town and have filed license applications. In September and October 2015, the Board of Trustees approved four (4) retail marijuana storefront applications and one (1) retail marijuana product manufacturing facility. Currently there are two (2) dispensary and one (1) cultivation facility applications pending. The Town anticipates an additional manufacturing application submittal in the near future.

Methodology

BBC's economic and fiscal impact analysis projects Town revenues associated with the retail marijuana industry. These revenue sources include sales tax, excise tax, licensing fees, property tax (real and personal), construction use-tax, and development impact fees. BBC relied upon third-party research and studies, proprietary data and calculations, and interviews with retail marijuana business owners and operators to inform the assumptions used throughout the model. BBC opted to present results as a range where appropriate rather than a single point estimate given the variance around certain assumption metrics. As part of the overall study, BBC interviewed parties actively engaged in establishing a marijuana business in Parachute, as well as other marijuana industry leaders whom provided guidance and insight on various assumptions and calculations.

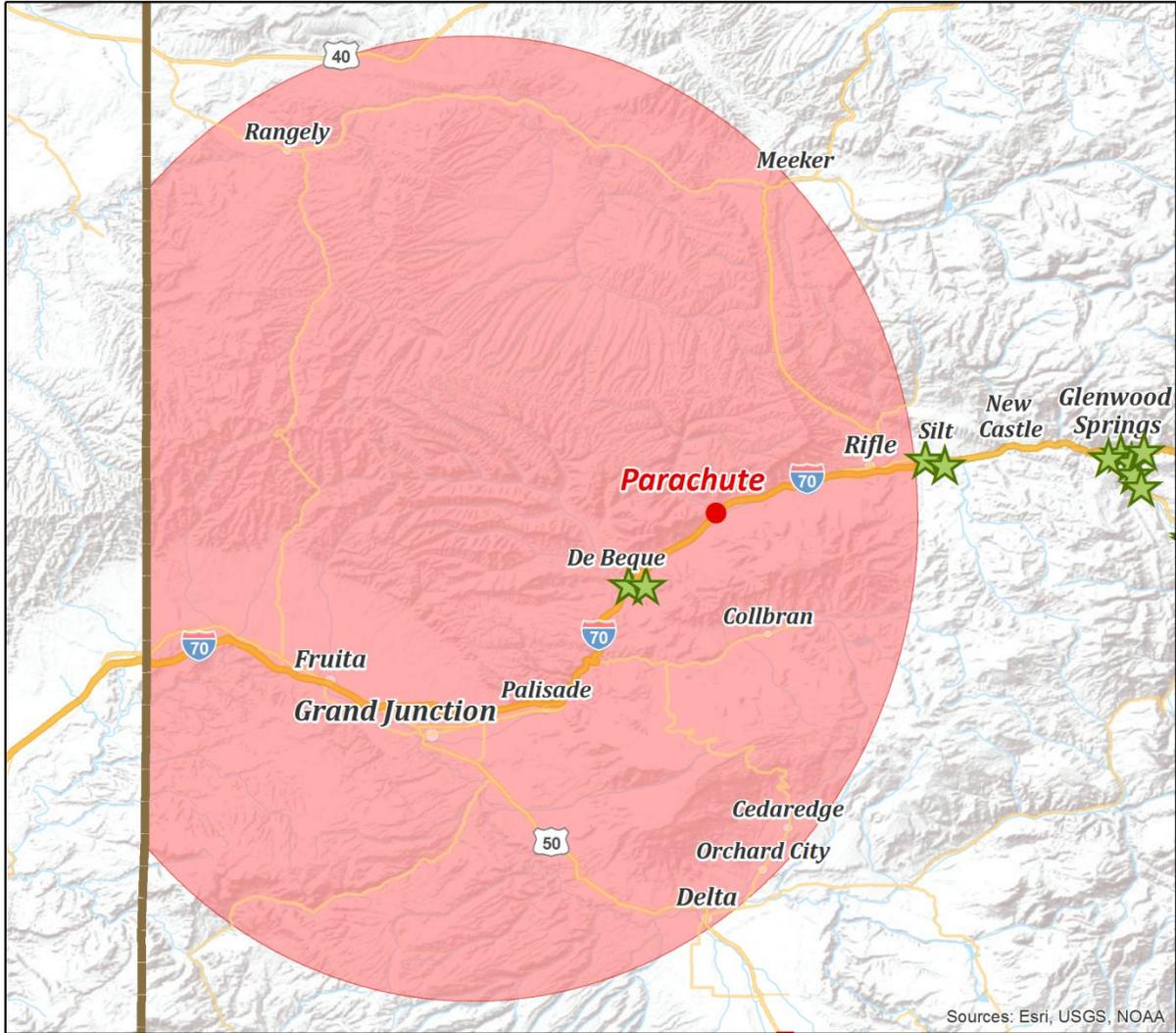
Retail Marijuana Market Quantification and Sales

Parachute's likely retail marijuana sales market size is a combination of marijuana consumers that reside in relatively close proximity to Parachute (i.e. reasonable driving distance) and passengers traveling along Interstate 70 (I-70). BBC utilized different methodologies in the quantification of potential customers from these two separate customer segments, referred to as regional customers and highway customers (I-70 passengers), respectively.

Estimation of regional retail marijuana customers. BBC defined the regional trade area based upon reasonable driving times and the location of currently operating retail marijuana storefronts, which are publically available on the State of Colorado Marijuana Enforcement Division (MED) website. Currently there are two (2) retail marijuana storefronts in the Town of De Beque, two (2) in the Town of Silt, and six (6) in Glenwood Springs. BBC assumes that Parachute retail marijuana storefronts will primarily serve the regional market to the west of Parachute, due to the limited number of retail marijuana storefronts in Mesa County and Grand Junction. Additionally, Parachute retail marijuana dispensaries may have a comparative advantage over existing and future competitors to the west with two easy-on / easy-off I-70 interchanges and a lower total sales tax rate on retail marijuana at present.¹ Given the eight (8) retail marijuana storefronts located east of Parachute in close proximity, BBC conservatively omitted communities beyond Rifle in the analysis. Figure 2 on the following page shows the regional market area utilized by BBC in the analysis.

¹ Total sales tax on retail marijuana is seventeen and six-tenths percent (17.6%) in Parachute compared to twenty-one and nine-tenths percent (21.9%) in De Beque.

Figure 2
Retail Marijuana Market Map with Existing Retail Dispensaries



Source: State of Colorado Marijuana Enforcement Division; BBC Research & Consulting.

Using the defined regional market area above, BBC aggregated census tract population data from the U.S. Census Bureau’s American Community Survey (ACS). The process resulted in a twenty-one and over population of almost 142,000 with about 3,500 residing in Parachute and Battlement Mesa. Using data from the National Survey on Drug Use and Health (NSDUH), the Marijuana Policy Group (MPG) calculated marijuana user prevalence rates specific to Colorado.² The MPG estimated a Colorado monthly user prevalence rate of twelve and six-tenths percent (12.6%), meaning that 12.6 percent of the State population consumes marijuana at least once a month. Based on this value, BBC estimates about 18,000 monthly marijuana consumers reside in the regional market area. However, this monthly consumer total includes a subset of monthly medical marijuana users that should not be included as retail marijuana consumers.

BBC calculated and removed medical marijuana patients aged twenty-one and over residing in the regional market area using data publically available from the State of Colorado Department of Public Health and Environment. After netting out medical marijuana patients, BBC assigned retail marijuana customer capture rates. BBC assumes that ninety percent (90.0%) of Parachute and Battlement Mesa marijuana consumers will purchase retail marijuana at a storefront in Town, and about twenty percent (20.0%) of marijuana consumers in the rest of the regional market will purchase retail marijuana in Parachute. Figure 3 summarizes the assumptions and calculations used in estimating the number of retail marijuana customers in Parachute, which is estimated at about 3,300 monthly users.

**Figure 3
Regional Retail Marijuana Customers (Monthly Users)**

Geography	Population 21 and Over	X	Colorado Monthly User Prevalence Rate	=	Medical Marijuana Patients	X	Parachute Retail Marijuana Capture Rate	=	Parachute Retail Marijuana Monthly Customers
Parachute and Battlement Mesa	3,551		12.6%		107		90%		306
Remainder of Regional Market	138,165		12.6%		2,491		20%		2,984
Total	141,716								3,290

Source: American Community Survey; State of Colorado Department of Public Health & Environment; National Survey on Drug Use and Health; BBC Research & Consulting.

In addition to estimating monthly marijuana users, the MPG also estimated the prevalence rate of annual marijuana users, excluding those that were previously categorized as monthly users. The MPG estimated the Colorado annual prevalence rate at five and two-tenths percent (5.2%), meaning that 5.2 percent of the State population consumes marijuana at least once a year but less frequently than once a month. As medical marijuana users have already been accounted for

² “Market Size and Demand for Marijuana in Colorado.” Marijuana Policy Group, 2014. Prepared for the State of Colorado Department of Revenue.

in the monthly retail marijuana customer calculation, no adjustment is required among annual retail marijuana customers. BBC applied the same retail marijuana customer capture rates used in the monthly user analysis above. Figure 4 presents the assumptions and calculations used in estimating the number of annual retail marijuana customers in Parachute, which is estimated at about 1,600 annual users.

Figure 4
Regional Retail Marijuana Customers (Annual Users)

Geography	Population 21 and Over	X Colorado Annual User Prevalence Rate	X Parachute Retail Marijuana Capture Rate	= Parachute Retail Marijuana Annual Customers
Parachute and Battlement Mesa	3,551	5.2%	90%	166
Remainder of Regional Market	138,165	5.2%	20%	1,437
Total	141,716			1,603

Source: American Community Survey; National Survey on Drug Use and Health; BBC Research & Consulting.

Figure 5 on the following page translates the number of estimated regional retail marijuana customers into retail storefront sales. Monthly retail marijuana customers in the region are assumed to make twelve (12) purchases per year, while the annual retail marijuana customers are assumed to make one (1) purchase per year. As purchase amounts vary widely from customer to customer, and publically available data containing this metric do not exist, BBC utilized a range of average purchase amounts (\$35, \$50, \$70) based upon market rates of typical purchase quantities, interviews with marijuana business owners, and internal data.

At an average purchase amount of \$50 (midpoint estimate), BBC estimates Parachute's share of regional retail marijuana sales of about \$2.0 million per year. BBC estimates a lower bound of \$1.4 million and an upper bound of \$2.9 million per year. These sales figures do not include the highway customer sales (I-70 passengers), which are discussed below.

Figure 5
Estimated Regional Market Sales Revenues – Town of Parachute

Retail Marijuana Customer Segment	Parachute Retail Marijuana Customers	X Purchases per Year	X	\$35 Average	\$50 Average	\$70 Average
				Purchase Amount	Purchase Amount	Purchase Amount
				Regional Market Sales Revenue (Lower Bound)	Regional Market Sales Revenue (Midpoint Estimate)	Regional Market Sales Revenue (Upper Bound)
Monthly Customers	3,290	12		\$1,381,775	\$1,973,965	\$2,763,551
Annual Customers	1,603	1		\$56,109	\$80,155	\$112,217
Total	4,893			\$ 1,437,884	\$ 2,054,120	\$ 2,875,768

Source: American Community Survey; State of Colorado Department of Public Health & Environment; National Survey on Drug Use and Health; BBC Research & Consulting.

Estimation of highway (I-70) retail marijuana customers. Passengers along I-70 represent a significant potential retail marijuana market. Figure 6 on the following page presents BBC's methodology for calculating the number of likely retail marijuana consumers traveling along I-70 over the course of a day. Colorado Department of Transportation (CDOT) data for traffic stations closest to Parachute show an average daily traffic count of 17,000 vehicles. Using additional CDOT data from the Silt traffic station (closest continuous traffic count station), about seventy-five percent (75.0%) of all traffic occurs between the hours of 9 a.m. and 9 p.m., the allowable operating hours for retail marijuana establishments in Parachute.

BBC assumes that eighty percent (80.0%) of traffic during these hours is non-regional traffic, meaning that twenty percent (20.0%) of the traffic is attributed to residents within the regional market area (see Figure 2).³ The National Household Travel Survey estimates that the average vehicle contains 1.67 passengers and that eighty-six percent (86.0%) of drivers are over the age of twenty-one. BBC assumes that about seventy-three percent (73.0%) of the remaining 0.67 passengers are over the age of twenty-one, based on the national age distribution from the ACS. Monthly and annual national marijuana user prevalence rates from the NSDUH are then applied to the estimate of total highway passengers over the age of twenty-one, resulting in an estimated 1,900 marijuana users passing by Parachute every day.

³ The assumption of 80 percent non-regional traffic and 20 percent regional traffic between 9 a.m. and 9 p.m. was informed by the local community and regional traffic study reports produced by the Roaring Fork Transportation Authority in 2014.

Figure 6
Estimated Daily Number of Potential Highway Retail Marijuana Customers

Derivation of Potential Highway Retail Marijuana Customers		
	I-70 Average Daily Traffic Count (Parachute Segment) (1)	17,000
<i>multiplied by</i>	% Traffic Count Business Hours (9 a.m. to 9 p.m.) (2)	74.9%
<i>multiplied by</i>	% Non-Regional Traffic (3)	80.0%
<i>equals</i>	Non-Regional Business Hours Traffic Count	10,186
<i>multiplied by</i>	Average Passengers per Vehicle (4)	1.67
<i>multiplied by</i>	% Population 21 and Over (5)	
	Driver (1.0)	86.0%
	Passenger (0.67)	72.7%
<i>equals</i>	Daily Passengers 21 and Over	13,721
<i>multiplied by</i>	Marijuana User Prevalence Rates (6)	
	U.S. Monthly User	8.3%
	U.S. Annual User	5.4%
<i>equals</i>	Potential Daily Retail Marijuana Customers	
	Monthly User	1,145
	Annual User	737
<i>equals</i>	Daily Number of Potential Retail Marijuana Customers	1,882

- Note: (1) The I-70 average daily traffic count is calculated using data from CDOT Station 103007 and Station 103008.
(2) The closest continuous count I-70 average daily traffic count location is CDOT Station 103011 near Silt, Colorado.
(3) Estimated by BBC using local community and regional traffic study reports produced by the Roaring Fork Transportation Authority in 2014.
(4) 2009 National Household Travel Survey (NHTS), tabulation created on the NHTS website.
(5) 2013 American Community Survey and NHTS tabulation.
(6) 2013 National Survey on Drug Use and Health, National Profile. Monthly users netted out of annual user calculation.
- Source: State of Colorado Department of Transportation; National Household Travel Survey; American Community Survey; National Survey on Drug Use and Health; BBC Research & Consulting.

Estimating the percentage of the 1,900 marijuana users along I-70 that will stop in Parachute and purchase retail marijuana on a daily basis is an unknown metric. Traditional big box stores typically anticipate capturing between one and two percent (1.0% - 2.0%) of pass by traffic in a highway/interstate setting. BBC assumes a lower bound capture rate of one percent (1.0%) and an upper bound of three percent (3.0%). This results in an estimated nineteen (19) to fifty-six (56) daily highway customers purchasing retail marijuana in Parachute, with a midpoint estimate of thirty-eight (38) highway customers (Figure 7).

Figure 7
Estimated Highway Retail Marijuana Customers

Highway Retail Marijuana Customer Capture Scenario	Daily Number of Potential Highway Retail Marijuana Customers	Parachute Capture Rate	Daily Highway Retail Marijuana Customers (Parachute)	Annual Highway Retail Marijuana Customers (Parachute)
Low Capture		1%	19	6,869
Midpoint Capture	1,882	2%	38	13,738
High Capture		3%	56	20,607

Source: State of Colorado Department of Transportation; National Household Travel Survey; American Community Survey; National Survey on Drug Use and Health; BBC Research & Consulting.

Figure 8 translates the estimated number of highway retail marijuana customers into sales revenue. BBC assumes the same purchase amounts (\$35, \$50, \$70) that were used in the regional sales revenue analysis (see Figure 5). These bounds coupled with the Parachute capture rate bounds leads to a matrix of estimated highway customer sales revenue. The highlighted values in Figure 8 represent the lower bound (\$240,000), midpoint estimate (\$685,000) and upper bound (\$1.4 million) for highway customer sales revenue.

Figure 8
Estimated Highway Customer Market Sales Revenue

Highway Customer Retail Marijuana Capture Scenario	Annual Highway Customer Retail Marijuana Customers	\$35 Average Purchase Amount	\$50 Average Purchase Amount	\$70 Average Purchase Amount
		Highway Customer Sales Revenue (Lower Bound)	Highway Customer Sales Revenue (Midpoint Estimate)	Highway Customer Sales Revenue (Upper Bound)
Low Capture	6,869	\$ 240,413	\$ 343,447	\$ 480,826
Midpoint Capture	13,738	\$ 480,826	\$ 686,895	\$ 961,652
High Capture	20,607	\$ 721,239	\$ 1,030,342	\$ 1,442,478

Source: State of Colorado Department of Transportation; National Household Travel Survey; American Community Survey; National Survey on Drug Use and Health; BBC Research & Consulting.

Estimated Retail Marijuana Sales Tax Revenue. Figure 9 summarizes the estimated regional and highway customer retail marijuana sales revenues and applies the Town sales tax rate of three and three-quarters percent (3.75%) to calculate sales tax revenue. The Town will also benefit from monthly tax revenue sharing with the State, as local governments receive fifteen percent (15.0%) of the ten percent (10.0%) retail marijuana State sales tax collected within their municipality—effectively an additional one and one-half percent (1.5%) sales tax that accrues to Parachute. BBC estimates that annual sales tax revenue (Town sales tax plus State retail marijuana tax redistribution) collected from retail marijuana will be between about \$90,000 and \$225,000, with a midpoint estimate of about \$145,000.

Figure 9
Estimated Total Sales Revenue and Town of Parachute Sales Tax Revenues

Parachute Retail Marijuana Scenario	Regional Market Sales Revenue	+	Highway Customer Sales Revenue	=	Total Sales Revenue	Town of Parachute Sales Tax Revenue (3.75%)	State Sales Tax Redistribution Revenue (1.5%)	Total Sales Tax Revenues
Lower Bound	\$ 1,437,884		\$ 240,413		\$ 1,678,297	\$ 62,936	\$ 25,174	\$ 88,111
Midpoint Estimate	\$ 2,054,120		\$ 686,895		\$ 2,741,014	\$ 102,788	\$ 41,115	\$ 143,903
Upper Bound	\$ 2,875,768		\$ 1,442,478		\$ 4,318,246	\$ 161,934	\$ 64,774	\$ 226,708

Source: State of Colorado Department of Transportation; National Household Travel Survey; American Community Survey; National Survey on Drug Use and Health; State of Colorado Marijuana Enforcement Division; State of Colorado Marijuana Enforcement Division; BBC Research & Consulting.

Excise Tax Revenues on Unprocessed Retail Marijuana

On November 3, 2015, Parachute voters passed a ballot initiative, with nearly sixty-six percent (66.0%) of the vote, which places a five percent (5.0%) excise tax on the wholesale value of unprocessed marijuana sold or transferred from a retail cultivation facility. Tax revenues collected from the excise tax are limited to \$200,000 in fiscal year 2016 due to Colorado Taxpayer Bill of Rights (TABOR) limitations. After fiscal year 2016, the Town is not constrained by the \$200,000 excise tax collection limit. Figure 10 on the following page presents the estimated excise tax revenue generated from a 10,000 square foot cultivation facility—an average indoor warehouse cultivation operation—and a 30,000 square foot cultivation facility—representative of a larger industrial sized cultivation operation.

Figure 10
Estimated Excise Tax Revenues by Size of Cultivation Facility

Derivation of Excise Tax Revenue		10,000 Square Foot Cultivation Facility	30,000 Square Foot Cultivation Facility
	Square Footage of Cultivation Facility	10,000	30,000
<i>multiplied by</i>	% Flowering Canopy of Total Square Footage (1)	49%	65%
<i>equals</i>	Flowering Canopy Square Footage	4,900	19,500
<i>multiplied by</i>	Grams per Flowering Canopy Sq Ft per Harvest (2)	40	40
<i>multiplied by</i>	Number of Harvest per Year (3)	5	5
<i>equals</i>	Annual Cultivation Production		
	Grams	980,000	3,900,000
	Pounds	2,161	8,598
<i>multiplied by</i>	Cultivated Product Distribution (4)		
	% Flower ("Bud")	70%	70%
	% Shake/Trim	30%	30%
<i>equals</i>	Cultivated Product for Transfer or Wholesale		
	Pounds of Flower ("Bud")	1,512	6,019
	Pounds of Shake/Trim	648	2,579
<i>multiplied by</i>	Colorado MED Transfer/Wholesale Market Rates (5)		
	Flower ("Bud") Rate per Pound	\$ 1,868	\$ 1,868
	Shake/Trim Rate per Pound	\$ 370	\$ 370
<i>equals</i>	Transfer/Wholesale Revenues	\$ 3,064,931	\$ 12,197,173
<i>multiplied by</i>	Town of Parachute Excise Tax (6)	5%	5%
<i>equals</i>	Town of Parachute Excise Tax Revenues (7)	\$ 153,247	\$ 609,859
		(Capped at \$200,000 for 2016 - Town Ordinance)	

Note: (1) "Economies of Scale in the Production of Cannabis." Hawken and Prieger, 2013. Of total cultivation space, 70% is devoted to production and 70% of that space is used for growing area ("flowering canopy")—70% * 70% = 49%. Based on information provided by Denver Relief Consulting, there is a large fixed amount of non-flowering canopy square footage such that larger facilities have a greater percentage of flowering canopy square footage to total square footage. Denver Relief Consulting estimated this percentage at 65% for a 30,000 square foot cultivation facility.

(2) "Estimating Adequate Licensed Square Footage for Production." Caulkins, et. al., 2013. Based on interview with Denver Relief Consulting, this value (40 grams per flowering canopy square foot per harvest) is conservative and represents only usable cultivated product, not plant waste material. The range for this value is likely between 40 and 57 grams per flowering canopy square foot per harvest.

(3) Caulkins, et.al., 2013.

(4) BBC Research & Consulting internal data, interviews with retail marijuana cultivators and Denver Relief Consulting. Percentages assume plant waste material has already been accounted for in *Grams per Flowering Canopy Sq Ft per Harvest*. Percentages will vary for individual cultivators based upon cultivation techniques.

(5) State of Colorado Marijuana Enforcement Division website. <https://www.colorado.gov/pacific/tax/marijuana-taxes-file>. Based upon current period rate: July 1, 2015 through December 31, 2015. Likely to change in future periods.

(6) Town of Parachute Ordinance No. 687. Beginning January 1, 2016, Town of Parachute will impose an excise tax of 5% on unprocessed retail marijuana when sold or transferred from retail marijuana cultivation facility.

(7) Town of Parachute excise tax revenue is limited to \$200,000 in fiscal year 2016 due to Colorado Taxpayer Bill of Rights (TABOR) restrictions. After fiscal year 2016, no excise tax revenue limitation will exist.

Source: Town of Parachute; BOTEC – "Estimating Adequate Licensed Square Footage for Production"; State of Colorado Marijuana Enforcement Division; Interviews with Cultivators; Denver Relief Consulting; BBC Research & Consulting.

The excise tax revenue is dependent upon a set of cultivation assumptions. BBC utilized a combination of prior research and studies, internal data and calculations, and conversations with current cultivators to establish appropriate assumptions. As each cultivation facility will differ in its actual production values, and therefore, input assumptions in the model, BBC used relatively conservative assumptions throughout the excise tax revenue derivation. It is also worth noting that this excise tax revenue derivation does not incorporate Statewide retail marijuana market supply and demand, which impact individual cultivation operator decisions.

A 10,000 square foot cultivation facility is expected to generate around \$150,000 in excise tax revenue per year. A 30,000 square foot cultivation facility would have proportionately more flowering canopy square feet than the 10,000 square foot facility due to fixed non-flowering canopy space not scaling with the facility (e.g. office space, storage, restrooms, etc.). As such, a 30,000 square foot cultivation facility is estimated to generate about \$610,000 in annual excise tax revenue—capped at \$200,000 in fiscal year 2016, unconstrained after 2016. Based upon the utilized assumptions, generating the maximum excise tax revenue amount of \$200,000 in 2016 would require about 13,000 square feet of cultivation facility space (6,400 square feet of flowering canopy).

Recurring Revenues Associated with Retail Marijuana

In addition to sales and excise tax revenue, retail marijuana businesses also contribute to annual Town revenues through real and personal property tax and annual retail marijuana licensing fees. Figure 11 on the following page presents the calculated valuation of new construction and improvement for each retail marijuana business. Cultivation and manufacturing facilities are modeled for both the renovation of an existing structure and the construction of a new facility. One-time construction/improvement costs range from \$75 to \$150 per square foot depending upon the facility type. The construction use-tax form used by the Town assumes that material costs comprise forty-two percent (42.0%) of total valuation. Personal property improvements (capital equipment, fixtures and furnishings, product and cash vault—dispensary, etc.) range from \$30 to \$50 per square foot depending upon the facility type. Personal property assets will depreciate overtime in accordance to the accepted depreciation schedule.

**Figure 11
Estimated Construction Costs and Valuation Increases (Real Property and Personal Property)**

Retail Marijuana Operation	Average Square Footage of Facility	Business Real Property (1)			Business Personal Property (2)		Total Valuation Increase
		Improvement Cost per Square Foot	% Material Cost	Valuation Increase	Personal Property Value per Square Foot	Valuation Increase	
Cultivation							
Renovated	10,000	\$ 100	42%	\$ 420,000	\$ 30	\$ 300,000	\$ 720,000
New Construction	10,000	\$ 150	42%	\$ 630,000	\$ 30	\$ 300,000	\$ 930,000
Manufacturing							
Renovated	5,000	\$ 75	42%	\$ 157,500	\$ 35	\$ 175,000	\$ 332,500
New Construction	5,000	\$ 100	42%	\$ 210,000	\$ 35	\$ 175,000	\$ 385,000
Dispensary							
Renovated	2,000	\$ 75	42%	\$ 63,000	\$ 50	\$ 100,000	\$ 163,000

Note: (1) Improvement costs per square foot were informed by interviews with retail marijuana businesses and Denver Relief Consulting. Improvement costs per square foot will vary depending upon facility plan specifics and operational characteristics.
 (2) Personal property improvements per square foot were informed by internal BBC data and interviews with retail marijuana businesses. The valuation of business personal property will depreciate over time according to accepted depreciation schedules.

Source: Town of Parachute; Interviews with Retail Marijuana Business Owners and Operators; BBC Research & Consulting.

Figure 12 models the anticipated marginal increase in property tax revenues for the Town of Parachute, as well as School District 16. The marginal increase in taxable valuation is twenty-nine percent (29.0%) of the calculated valuation from Figure 11, which is the taxable valuation percentage for commercial properties in Colorado. A 10,000 square foot newly constructed cultivation facility is estimated to generate an increase of \$3,650 in annual Town property tax revenues. A 2,000 square foot retail marijuana storefront would increase Town property tax revenues by \$640 per year. Each retail marijuana business would create \$2,000 in annual Town revenues through renewal licensing fees.

**Figure 12
Estimated Marginal Increase in Recurring Town Revenues – Property Tax and Licensing Fees**

Retail Marijuana Operation	Total Valuation Increase	Increase in Taxable Valuation	Town of Parachute Property Tax Revenue Increase (13.5620 Mills)	School Dist. 16 Property Tax Revenue Increase (9.0120 Mills)	Annual Licensing Retail Marijuana Fees
Cultivation					
Renovated	\$ 720,000	\$208,800	\$ 2,832	\$ 1,882	\$ 2,000
New Construction	\$ 930,000	\$269,700	\$ 3,658	\$ 2,431	\$ 2,000
Manufacturing					
Renovated	\$ 332,500	\$96,425	\$ 1,308	\$ 869	\$ 2,000
New Construction	\$ 385,000	\$111,650	\$ 1,514	\$ 1,006	\$ 2,000
Dispensary					
Renovated	\$ 163,000	\$47,270	\$ 641	\$ 426	\$ 2,000

Source: Town of Parachute; Interviews with Retail Marijuana Business Owners and Operators; BBC Research & Consulting.

One-Time Revenues Associated with Retail Marijuana

The construction of new retail marijuana businesses or the renovation of existing structures for marijuana operations leads to one-time Town revenues in the form of construction use-tax, development fees, and initial licensing fees. Building permit fees have been omitted from the analysis as these fees are intended to recover costs associated with building permit inspections and administrative tasks. Construction use-tax is three and three-quarters percent (3.75%) in Parachute and is applied to the value of building materials used in construction. Traffic impact fees, as well as water and sewer tap fees, are applied to new development based upon the current rates imposed by the Town. Each retail marijuana business is assessed an initial application licensing fee of \$5,000 directly by the Town, in addition to \$2,500 paid to the State and forwarded to the Town—total of \$7,500 in initial application licensing fees collected by the Town. Figure 13 presents the anticipated one-time revenues associated with retail marijuana business construction and licensing. A newly constructed cultivation facility is estimated to generate the greatest amount in one-time Town revenues with over \$53,000. A retail marijuana storefront is estimated to generate about \$10,000 in one-time Town revenues.

Figure 13
Estimated One-Time Town Revenues

Retail Marijuana Operation	Valuation of Construction/Improvement	Construction Use-Tax Revenues (3.75% Use-Tax)	Facility Square Footage	Traffic Impact Fee Revenues (1)	Water and Sewer Tap Fee Revenues (2)	Initial Licensing Retail Marijuana Fees (Town of Parachute & State Contribution) (3)	Total One-Time Revenues
Cultivation							
Renovated	\$ 420,000	\$15,750	10,000	N/A	N/A	\$ 7,500	\$ 23,250
New Construction	\$ 630,000	\$23,625	10,000	\$ 2,521	\$ 19,500	\$ 7,500	\$ 53,146
Manufacturing							
Renovated	\$ 157,500	\$5,906	5,000	N/A	N/A	\$ 7,500	\$ 13,406
New Construction	\$ 210,000	\$7,875	5,000	\$ 1,261	\$ 9,750	\$ 7,500	\$ 26,386
Dispensary							
Renovated	\$ 63,000	\$2,363	2,000	N/A	N/A	\$ 7,500	\$ 9,863

Note: (1) New retail marijuana cultivation and manufacturing facility construction is categorized as industrial by BBC for traffic impact fee modeling purposes.

(2) New retail marijuana cultivation and manufacturing facility construction is categorized as industrial by BBC for water and sewer tap fee modeling purposes.

(3) Initial application licensing fees are made up of \$5,000 collected directly by the Town of Parachute and \$2,500 collected by the State and paid to the Town.

Source: Town of Parachute; Interviews with Retail Marijuana Business Owners and Operators; BBC Research & Consulting.

Employment and Labor Income

As noted throughout BBC's interviews with marijuana industry business owners and operators, the number of jobs created by a cultivation facility or manufacturing facility is dependent upon firm specific characteristics such as investment in automated processes, frequency of production, demand for produced products, and economies of scale. Given the employment and sales projections provided by prospective and existing retail dispensary operators, employment at retail dispensaries appears to be more formulaic with about ten (10) employees per \$1 million in sales. BBC distinguished between low skill positions and high skill

positions/management for the job creation and labor income calculations. Interviews with marijuana business owners suggest low skill positions earn between \$20,000 and \$30,000 per year and high skill positions/management earn between \$40,000 and \$60,000 per year. BBC used the midpoint of the ranges provided.

Figure 14 presents employment estimates for each retail marijuana operation, average annual earnings by employee type (low vs. high skill), and the total labor income. A 10,000 square foot cultivation facility is estimated to employ fifteen (15) full-time employees, totaling \$450,000 in labor income. A 5,000 square foot manufacturing facility is expected to employ eighteen (18) full-time employees and generate \$525,000 in total labor income. The dispensary sales values in Figure 14 are based on \$1 million in annual sales, but a high performing dispensary is likely to have sales revenue in excess of \$2 million, translating to an estimated twenty (20) full-time employees and \$550,000 in labor income. In sum, the presence of a cultivation facility, manufacturing facility and a high-performing retail dispensary in Parachute would create an estimated fifty-three (53) full-time jobs, with additional retail marijuana businesses creating more jobs.

Figure 14
Estimated Job Creation and Labor Income

Retail Marijuana Operation	Number of Full-time Employees	X	Average Annual Earnings	= Total Labor Income
Cultivation - 10,000 Sq Ft Facility	15			\$ 450,000
Low Skill Positions	12		\$ 25,000	\$ 300,000
High Skill Positions/Management	3		\$ 50,000	\$ 150,000
Manufacturing - 5,000 Sq Ft Facility	18			\$ 525,000
Low Skill Positions	15		\$ 25,000	\$ 375,000
High Skill Positions/Management	3		\$ 50,000	\$ 150,000
Dispensary - \$1 million sales revenue	10			\$ 275,000
Low Skill Positions	9		\$ 25,000	\$ 225,000
High Skill Positions/Management	1		\$ 50,000	\$ 50,000

Source: Interviews with Retail Marijuana Business Owners and Operators; BBC Research & Consulting.

Retail Marijuana's Role in Economic Development

As stated in the comprehensive plan update, as well as recent news articles, the Town of Parachute is experiencing fiscal hardship due to the recent downturn in the natural gas industry. Parachute is heavily reliant upon the natural gas industry for generating Town revenues and creating jobs and income for its residents. Economic diversification is central to Parachute's long-term economic and fiscal health, due to the volatility of the natural gas industry. The emergence of the retail marijuana industry in Colorado, coupled with some of the unique attributes of Parachute and its residents, is an opportunity for Parachute to diversify its economy immediately, and perhaps position itself at the forefront of the Western Slope marijuana industry in years to come.

Retail marijuana as an economic development catalyst. The analyses presented in this report have estimated the direct economic and fiscal impacts of the retail marijuana industry. However, the economic and fiscal impacts extend beyond just direct sales and employment. The presence of retail marijuana establishments will spur additional economic activity through a variety of channels. Retail marijuana industry workers will spend a portion of their earned income within Parachute on food, dining, retail, etc. In addition to industry workers, the customers of retail dispensaries, specifically highway customers, are also potential customers for other businesses in Parachute. If a significant number of new customers frequent existing Parachute businesses, these businesses will hire additional labor to meet demand. New businesses may also emerge to meet demand or to fill underperforming sectors in the economy not currently, or sufficiently, represented (e.g. entertainment).

Beyond an increased customer base for other Parachute businesses, retail marijuana businesses will increase local business-to-business (B2B) transactions. B2B activity is dependent upon the goods and services needed by the marijuana businesses and their ability to find them in the local market. For example, one prospective marijuana business owner noted a high likelihood of purchasing supplies and materials from the hardware store located in Battlement Mesa. Over time, ancillary marijuana businesses (growing supply store, professional services, etc.) could find it beneficial to locate in Parachute depending upon the size and trajectory of the industry locally, which would increase B2B transactions and result in increased economic and fiscal benefits to the Town.

In terms of quantifying these indirect and induced impacts of retail marijuana, an economic multiplier effect of around one and one-half (1.5) is typical for industries similar in nature (brewery, winery, light manufacturing, general retail sales, etc.). This means that for each economic unit of output (sales, tax revenues, labor, etc.), one-half (0.5) economic units of output are subsequently generated in the local economy. However, given that Parachute is part of a much larger western slope regional economy, an economic multiplier effect of one and two-tenths (1.2) is more appropriate.

An economic multiplier effect of one and two-tenths (1.2) results in an estimated \$645,000 (midpoint estimate Figure 8) in additional annual sales and about \$24,000 in additional Town sales tax revenues. In addition to the fifty-three (53) full-time positions created from a cultivation facility, manufacturing facility and \$2 million sales dispensary, another ten and six-tenths (10.6) full-time jobs would be added to the local economy due to the retail marijuana industry.

Opportunity to establish Parachute as a marijuana industry center. During our interviews with prospective retail operators, Town location and workforce were repeatedly mentioned as attractive community qualities. As noted above, I-70 passers represent a sizeable market for retail marijuana sales, but beyond sales, Parachute's location along I-70 is desirable for cultivation, manufacturing, and distribution.

Existing retail marijuana cultivators and manufacturers wishing to expand operations are often targeting the mountain resort communities, and facilities in Parachute are an economical option to enter into these markets, providing easy Interstate access and lower utility costs compared to the greater Denver area. In addition to I-70, rail also passes through Parachute and the ability to ship product via rail was mentioned as a location consideration. While federal policy prohibits Interstate commerce of marijuana, some prospective business owners view Parachute operations as a long-term investment, one where Parachute could become even more strategically situated, and profitable, if federal policy changes.

With the decline in natural gas production in the Parachute area, a number of local workers are likely to face unemployment or underemployment. Many of these workers possess the knowledge and training that is easily adaptable to the marijuana industry, namely the operation of machinery for cultivation and manufacturing facilities. In addition to a preexisting workforce, prospective retail marijuana business operators also noted that the available housing stock and rental market in Parachute align with the wages likely earned by most retail marijuana employees.

Another unique attribute of Parachute is its current stock of undeveloped land parcels, especially parcels zoned service commercial, general, or light industrial—a prerequisite for a retail cultivation facility in Parachute. Using data from the Garfield County Assessor's website, BBC identified about twenty (20) contiguous vacant parcels in the northwest part of Town that could be well situated for the construction of multiple marijuana cultivation and manufacturing facilities. A highly beneficial trait of these parcels is that utilities are already extended out to them, theoretically shortening the timeframe to begin construction.

There has been interest within the marijuana industry to create business parks that bring together numerous operators; facilitating innovation and jointly promoting the industry. In addition to dispensaries, cultivators, and manufacturers, the business park could house marijuana medical wellness centers, testing facilities, transportation and distribution businesses, supply (grow) stores, and contracted services (e.g. security). The Town may have a unique opportunity to engage such groups when approached and work together in developing a highly modern and industry leading marijuana business center that will create jobs and Town revenues, as well as solidify Parachute's position in the marijuana industry moving forward.

Summary

Retail marijuana in Parachute serves as an immediate and viable option to diversify the economy and generate one-time and recurring Town revenues. BBC estimates retail marijuana sales tax revenues between \$90,000 and \$225,000 per year depending on retail dispensary capture rates. It is important to note that these estimated values are highly dependent upon the local policies enacted by communities to the west of Parachute. Excise tax revenues on unprocessed retail marijuana are estimated at about \$150,000 per 10,000 square feet of cultivation facility space. One-time revenues associated with the licensing and construction of retail marijuana establishments are sizeable and could generate substantial Town revenues, especially in the event of a multi-operator development. Figure 15 presents a summary of the

study’s municipal revenue and job creation findings. Lower and upper bound values are presented where appropriate (see report section for midpoint estimate).

**Figure 15
Summary of Municipal Revenues and Jobs Supported**

Town Revenue Source	Retail Dispensaries (1)	Cultivation (10,000 Sq Ft Facility)	Manufacturing (5,000 Sq Ft Facility)
Aggregated Town-Level			
Annual Retail Sales Tax (2)	\$88,111 - \$226,708	-	-
Individual Facility-Level			
Annual Excise Tax	-	\$153,247	-
Annual Property Tax - Marginal Increase (3)	\$641	\$2,832 - \$3,658	\$1,308 - \$1,514
Annual Licensing Fee	\$2,000	\$2,000	\$2,000
One-Time Revenues (4)	\$9,863	\$23,250 - \$53,146	\$13,406 - \$26,386
Reporting Level	Aggregated Town-Level	Facility-Level	Facility-Level
Jobs Supported (FTE)	17 - 43	15	18

- Note:
- (1) Due to construction of the economic and fiscal model, annual retail sales revenue and supported jobs for retail marijuana dispensaries is aggregated and reported at the municipal (Town of Parachute) level.
 - (2) Includes both Town of Parachute sales tax revenue and the State sales tax redistribution amount.
 - (3) These values represent the marginal increase over existing annual property tax payment amounts, not the total property tax payment itself. Includes real and personal property tax payments.
 - (4) One-time revenues include construction use-tax, development fees, and initial licensing fees (Town of Parachute directly collected fee and State application fee component paid to municipality).

Source: BBC Research & Consulting.

In addition to direct economic and fiscal benefits, the retail marijuana industry is likely to spur additional economic activity in the local economy through retail marijuana customers’ expenditure at non-marijuana businesses, marijuana industry employees’ expenditure within the local economy, and business-to-business transactions involving retail marijuana businesses. For the retail marijuana industry in Parachute to prosper and serve as an economic catalyst, the Town must ensure that the regulatory landscape is competitive with other nearby communities that may also be vying for a strong retail marijuana industry.

Sincerely,



Adam Orens
Managing Director