Marin Conservation League

Analysis of
SMART'S FINANCIAL & PROJECT PERFORMANCE

This article summarizes the Marin Conservation League's (MCL) financial and project performance analysis of the proposed Sonoma Marin Commuter Rail project, "SMART". The League is providing this analysis statement:

- to share the analysis and our findings regarding SMART
- to inform the public objectively about the costs and benefits of SMART
- to point out discrepancies and errors in cost data and other published information by SMART

Background

The MCL analysis is based on SMART documents. These include the SMART Draft and Final Environmental Reports; the SMART Expenditure Plan (July 26, 2006), also shown in the Marin County Sample Ballot; the unpublished Cost Estimate Backup Documentation from Parsons Brinckerhoff, Quade & Douglas (SMART's Engineering and Environmental Consultant); and SMART Board Meeting Packets. Our investigations have supplemented the SMART data with our own sources including the Federal Transit Administration, the Metropolitan Transportation Commission, the California Transportation Commission, the Office of the California State Controller, Caltrans, independent accountants, and bond counsel.

SMART's Expenditure Plan provides only a fragmentary summary regarding its projected financing, costs, revenues and operating results. MCL undertook this analysis because SMART's published financial information is not sufficient to make an informed decision on the merits of the proposed SMART commuter rail project.

Here is the cost and revenue information that SMART has released to the public in its Expenditure Plan and via staff and consultant memoranda.

SMART Anticipated Costs and Revenues Over 20 Years, (millions $)

Costs	Millions	**% Share**	**Revenues**	Millions	% Share
Rail Project	$387	28%	District (3)	$981	70%
Pathway	46	3%	Farebox (4)	130	9%
District Operations (1)	874	62%	Regional	72	5%
Program Contingency (2)	93	7%	State	137	10%
			Federal	80	6%
Total	$1,400	100%	Total	$1,400	100%

(1) Includes annual operating, maintenance and financing costs
(2) 20-year program contingency
(3) Includes sales tax revenues, NWP leasing revenues, joint development revenues and financing
(4) Fares are expected to contribute 9% of total revenues and 30% of annual rail operating costs

Source: 2006 Expenditure Plan, SMART, July 26, 2006

SMART Estimated Sales Tax Revenues and Operating Costs (millions in 2006 $)

Sales Tax Over 20 Years	
Marin County	$ 198
Sonoma County	$ 470
Annual Operating Costs	
Rail Project	$ 14.20
Bicycle-Pedestrian Pathway	$ 0.75
Shuttle Bus Services	$ 1.30
SMART Administration Costs	$ 1.34

Source: Parsons Brinckerhoff Memorandum, "SMART Annual Operating & Maintenance Cost Assumptions (2006 Estimate)" May 15, 2006 and Lillian Hames Memorandum, "SMART Expenditure Plan 2006 Draft", May 16, 2006

Unpublished capital cost data is contained in a SMART report, "Cost Data Backup", June 2006 by Parsons Brinckerhoff, Quade & Douglas (SMART's Engineering and Environmental Consultant). This report provides more-detailed documentation of estimated SMART capital cost items. The engineer's cost date is summarized in the table below.

SMART Capital Cost Project Summary –Larkspur to Cloverdale (2006)

Cost Element – Rail Project	**Cost Est.**	**Contingency**	**Total**
Track & Bridge Rehabilitation	$ 86,271,413	$ 12,263,488	$ 98,534,901
Signals	15,950,705	1.595.071	17,545,776
Grade Crossings	20,921,389	2,092,139	23,013,528
New Bridges and Tunnels	3,152,788	472,918	3,625,706
Stations	25,513,445	4,177,142	29,690,587
Maintenance & Layover Facility	18,660,000	4,665,000	23,325,000
Other Construction Costs	9,362,504	1,826,105	11,188,609
Contractor Design	10,789,935	1,078,993	11,868,928
Vehicles	65,257,517	6,525,752	71,783,269
Rail Project Right of Way	20,969,323	8,387,729	29,357,052
Add-on Multipliers (Management & Admin)	67,071,331	-	67,071,331
Baseline Cost (2006)	**$ 343,920,350**	**$ 43,084,337**	**$ 387,004,687**
Escalation to Construction	48544,721	-	48,544,721
Total Estimated Cost	**$ 392,465,071**	**$ 43,084,337**	**$ 435,549,408**
Cost Element – Pathway Project			
Bicycle /Pedestrian Pathway	$ 51,388,541	$ 8,034,931	$ 59,423,472
Pathway Right of Way	4,797,659	1,919,064	6,716,723
Add-on Multipliers (Management & Admin)	14,300,352		14,300,352
Baseline Cost (2006)	**$ 70,486,,552**	**$ 9,953,995**	**$ 80,440,547**
Escalation to Construction	7,224,383	-	7,224,383
Total Estimated Pathway Cost	**$ 77,710,935**	**$ 9,953,995**	**$ 87,664,930**
SMART Share Total Cost @ 57%			**$ 49,969,010**

Source: Parsons Brinckerhoff, SMART Cost Data Backup, June 2006, 137 pages

Recent statements to the press have accused the MCL of lying and exaggerating SMART's financial performance and economics. To set the record straight we present here the relevant facts:

SMART Costs, Revenues and Rider Projections

The SMART Expenditure Plan (July 26, 2006 Page 7, Table 2) shows SMART rail diesel train project cost at $387 million. This is incorrect as shown in the SMART Consulting

Engineer's cost table above. The best available estimate for SMART's rail project construction and startup cost, including escalation cost, is **$435.6 million**.

The SMART Expenditure Plan shows the bicycle/pedestrian pathway project cost at $80 million (of which SMART pays $46 million). This too is incorrect. Again, per SMART Consulting Engineer's cost table above the best available estimate for the pathway construction and startup cost, including escalation cost, is **$87.7 million**, of which SMART's share is **$50.0 million**.

Therefore, the best estimate for SMART's total construction and startup cost, including anticipated escalation cost for critical construction materials such as steel, concrete, ballast, etc., for the rail project plus it's share of the pathway project is **$485.5 million**, -- not $433 million as shown in SMART's Expenditure Plan.

The SMART Expenditure Plan shows the estimated total rail and bikeway project cost is **$1.4 billion. That number also is wrong**. SMART double counts bond financing principal, estimated to be approximately $350 million. Even so, the SMART rail and pathway project cost is still i**n excess of $1 billion** through 2026, the final year of the proposed 20-year sales tax authorization period.

The SMART Expenditure Plan shows passenger fare revenues at $130 million (over 20 years); it also states that the average passenger fare will be $4.00 per passenger trip. These numbers correspond to 32.5 million cumulative passengers through 2026, or 7,527 passengers per weekday. SMART' is **inflating passengers and fare revenue by 42%** over the 5,300 passenger trips per weekday reported in the final SMART Final Environmental Impact Report (EIR). The SMART final EIR estimates 5,300 weekday riders in 2010, before a Sonoma-Marin Narrows high occupancy lane is added on Hwy 101, and 5,050 riders in 2025 after the HOV lane is built. Simply do the math using the high rider estimate: 5,300 weekday passengers times 254 non-holiday weekdays per year times 17 years (2010 – 2026) equals only 22.89 million rail passenger trips. SMART misrepresents passenger trips at 32.5 million. At $4.00 average fare per passenger trip and 22.89 passengers, fare revenues equal $91.54 vs. SMART's fare revenue statement of $130 million.

SMART has spent over $6 million in engineering and environmental studies to-date. Four nationally prominent transportation consultants have estimated future rail riders – all projecting around 5,000 weekday riders or less. The SMART final EIR estimates 5,300 weekday riders in 2010, before a Sonoma-Marin Narrows high occupancy lane is added on Hwy 101, and 5,050 riders in 2025 after the HOV lane is built. Yet SMART and its proponents dismiss the train ridership estimates from the detailed EIR consultant environmental and engineering studies. The proponents prefer to believe that "...many more commuters than projected (will) ride and work on the train ..". But these assertions are flying in the face of what the experts are telling us. Further, proponents ignore the strong evidence showing that rail corridors do not work in suburban low densities because travelers would need to make two or three mode changes for most trips. Successful metropolitan commuter rail systems provide service to and from urban central city areas with high employment density and commercial activity. The proponents' claims are not credible. Is the public really expected to make a $485 million gamble up front for the diesel train system construction on a "build it and riders will come' guess – when $6 million and four (4) independent, nationally-prominent consultants have reported otherwise?

The SMART Expenditure Plan states that $80 million is anticipated in Federal funding. This amount is in sharp contrast to only $6 million in Federal monies actually obtained to-date. In fact, SMART has not even applied for Federal funding yet. In order to acquire Federal Transit Administration Rail New Starts funding, SMART must demonstrate favorable net benefits. The MCL analysis strongly indicates that SMART will have extreme difficulty in qualifying for Federal Rail New Start funds. The cost-benefit results of SMART are not likely to meet qualification standards for Federal Rail New Start funds.

SMART Transportation Performance

The transportation system performance contribution of the proposed SMART project is insignificant.

SMART will have no measurable impact on Hwy 101 traffic volume or congestion. SMART diesel trains in 2010 carry only 5,300 passenger trips per weekday – Highway 101 between Cloverdale and Larkspur carries over 1,000,000 person trips per day.

The SMART Final EIR document predicts 230 southbound train riders from Sonoma to Marin in 2025; there are over 20,000 Sonoma workers who commute to jobs in Marin. Highway 101 at the county line carried over 107,000 persons every day in 2004.

SMART attracts fewer than 900 Marin County resident trips per weekday and provides no direct service or benefit to over 50 percent of County residents

SMART will exacerbate street congestion in downtown areas of San Rafael, Petaluma and Santa Rosa – because every train will block traffic at east-west cross streets as the train passes. Potential transit-oriented development around stations also will add to local traffic and congestion.

SMART is not an effective transit mode. The SMART EIR projects 5050 weekday riders in 2025, or 1.28 million passengers per year. Yet Golden Gate Transit Buses in 2005 carried 7.62 million passengers – 5 times as many as SMART will carry in 2025. The Marin County Transit District carries 15 times more Marin riders than projected to use SMART, and at one-fifth the per-passenger operating cost of SMART.

SMART's Economic Performance

SMART states in the Marin County Sample Ballot for the November election that its 20-year cost will be $1.4 billion to build, operate and maintain SMART through 2026. However, this number is wrong because SMART double counted bond financing – a significant error -- in their cost estimate,. The correct SMART total cost is approximately $1.05 billion.

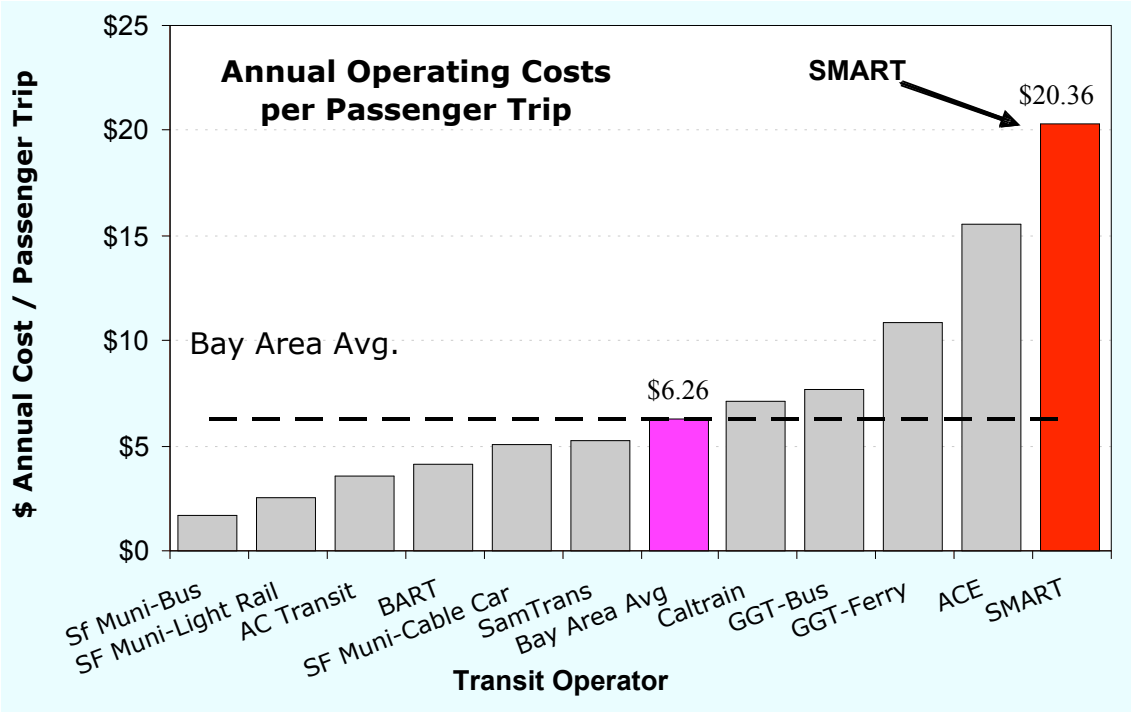
SMART also states in the Sample Ballot that passenger fares over twenty years will be $130 million at an average fare of $4.00 per passenger trip. SMART's claim is inconsistent with the Final EIR. The EIR found are that SMART would attract 5,300 passenger trips per weekday in 2010 (first operating year) and 5,050 in 2025. Using the higher passenger trip value (5,300), the total rail riders would be under 22.9 million through 2026 – yielding $91.6 million in farebox revenue – not $130 million. SMART's fare revenue assertion overstates the EIR finding by 42 percent

What will SMART's annual operating costs be? These costs include only the direct annual operating expense to operate the diesel trains, maintain rail vehicles, stations, and equipment, run the nine (9) shuttle buses, pay for SMART administrative expense,

and pay interest on bond borrowing; this excludes all capital cost to build the system as well as all bicycle/pedestrian pathway costs. The total direct operating cost for SMART's rail service through 2026 will be approximately $467 million.

SMART's direct operating cost is over $20 per passenger trip. See chart below.

SMART's operating cost is more than 3 times higher than the average of all San Francisco Bay Area transit operators (Source: San Francisco Bay Area Metropolitan Transportation Commission, Statistical Summary of Bay Area Transit Operators, Fiscal Years 2003 through 2004-05, January 2006 Revised).



SMART will be the worst performing transit operator in the entire Bay Area.

SMART states in a recent newsletter "..the annual projected cost of SMART per passenger mile is 79 cents" [Source: SMART E-mail Update – SMART sets the Record Straight", September 22, 2006]. This too is incorrect.

Here is the basis for correctly estimating SMART operating cost per passenger mile. SMART estimates their annual operating cost for rail operation and maintenance, shuttle bus operation, and District administrative expense to total $16.84 million per year (2006 $'s). See tables on page 1 and 2 above. Additionally the average annual interest expense for rail bonding debt from startup in 2010 through 2026 is projected to be approximately $9.8 million per year. That brings the total average annual SMART operating cost through 2026 to $26.64 million per year (excluding all pathway costs). The EIR estimate of 5,300 riders per weekday (in 2010) times 254 non-holiday weekdays per year times 13 miles average passenger trip distance (per EIR) yields 17.5 million annual rail passenger miles. Therefore, SMART's annual operating cost is

$26.84 million divided by 17.5 million annual passenger miles-- or approximately **$1.52 per rail passenger mile - not $0.79 as stated by SMART.** SMART understates their cost per passenger mile by 92%.

Clean Air and Climate Change

SMART claims that it will help clean air and reduce greenhouse gases that produce global warming. The facts are that:

SMART will emit carcinogenic diesel pollutants.

SMART's air quality effect is absolutely negligible. It does not reduce vehicle emissions because SMART changes the amount of vehicle travel by FAR LESS THAN 1/10 of 1 PERCENT.

Vehicle-miles of travel are a good proxy for transportation-related air pollution emissions. The SMART EIR states that SMART will reduce vehicle-miles of travel in Marin and Sonoma counties by 17,400 vehicle-miles per weekday (in 2025. However, there are 20 MILLION DAILY VEHICLE-MILES OF TRAVEL in the two counties and SMART's overall air quality effect is absolutely miniscule.

SMART claims it will reduce greenhouse gases by 124,000 pounds per day. SMART fails to note that these savings occur only when comparing SMART against the "no-project" alternative that maintains the status quo of motor vehicle use. No comparison was made to other transit options for greenhouse gas emissions. The SMART EIR reveals little difference in regulated air emission reductions between SMART and an Express Bus Alternative. It is reasonable to expect that the same will be true for greenhouse gas emissions. This alleged global warming benefit is hardly an absolute benefit as SMART proclaims.

There are far more effective and less costly ways to reduce greenhouse gases and global warming. For example, if only the homes in Marin County switched just two light bulbs to fluorescent bulbs, 1.8 times more greenhouse gases would be eliminated than the amount reduced by SMART. Moreover, there are many other less-costly and far more-effective initiatives to reduce Greenhouse gases than spending $1+ billion for SMART. These actions include:

- Expand car and van pooling incentives.
- Retire older, high polluting vehicles.
- Immediately implement bus-on-shoulder peak period operation on Highway 101. Commence HOV express service on the San Rafael HOV Gap Closure lanes as soon as they open in 2008. Expand express bus frequency and coverage, fully integrated with improved local hybrid bus transit service..
- Support implementation of greenhouse gas vehicle standards.

SMART's Impact on Land Use

SMART will encourage urban sprawl in northern Sonoma County and southern Mendocino County. The effect of greater accessibility will put severe growth pressure in the northern reaches of the North Bay where available water resources already are highly strained.

All existing homes near the rail line will experience 110 decibel horn blasts and crossing gate bells as each passing train approaches some 130 streets that cross the tracks. SMART's 24 weekday diesel trains as well as trash-haul and other freight diesel trains will create horn blasts, train noise, and crossing gate noise. Noise and vibration disruption and intrusion will lower the value of homes near the rail line.

SMART proponents suggest that rail transit will foster transit-oriented development including new housing units around SMART stations. But commuter rail is not the only form nor necessarily the best form of transit to encourage transit-oriented development**.**

Transit-oriented development plans envision over 30,000 new units around the 14 SMART station sites. These units also will be exposed to SMART train, grade crossing train horn and crossing gate bell noise and diesel pollutants. The additional development induced around SMART stations will result in added activity and higher levels of traffic and congestion around the stations. Moreover, about 20,000 of the new dwellings in Sonoma County and northern Marin would be directly exposed to additional freight train movements, diesel pollutants, and noise from horn blasts, crossing gate bells, and induced vibration from trash-haul trains and other freight trains.

Other Transportation System Consequences of SMART

SMART will cause reduction in Golden Gate transit services. The EIR notes that Golden Gate Route 75 will be the first casualty. Other reductions will occur if SMART siphons off bus riders.

SMART will compete with all existing transit providers for funding, particularly for State transportation and transit assistance funding.

SMART will drain $198 million of Marin transportation taxes and do very little toward solving real transportation problems in the North Bay.

SMART will always require continuing tax funding to operate. Its constant drain on the public's transportation purse will make it much more difficult to raise funds for other worthy projects and real solutions.

- **SMART does too little.**
- **SMART costs far too much (for what little it delivers).**
- **SMART diverts attention and scarce funding resources from real transportation solutions.**