Active Transportation Program – Technical Advisory Committee

Meeting Minutes
Tuesday, May 24, 2016
9:00AM to 3:30PM
1120 N Street, Sacramento, 95814 – Room 2116

Attendees: April Nitsos, Tamy Quigley, Laurie Waters, Ted Davini, Teresa McWilliam, Kevin Atkinson, Jaime Espinoza, Daryl Grigsby, Joel Goldberg, Lonora Graves, Oona Smith, Jerry Barton, Kate White, Jeanne LePage, Bill Sadler, Jim Townsend, Wendy Alfsen, Ryan Ong, Michelle Hasson, Daisy ?, Paul Zykofsky, Rye Baerg, Robert Chavez, Meredith Lee, Sarkes Khacheck, Sarah Jepson, Chris?

Time	Topic	Speaker
9:00AM	***Welcome and Opening Remarks*** The districts are working with local agencies on allocations and milestones	April/Tamy
9:05	***Active Transportation Resource Center (ATRC) Update***	Kevin Atkinson
9:15	***ATRC Presentation – CDPH role with ATRC*** Powerpoint (PPT) presentation is attached.	Mary Strode
9:35	***ATRC Presentation – CSUS role with ATRC*** Powerpoint (PPT) presentation is attached.	Michelle Gianini
9:55	***ATRC Presentation – Cycle 2 DAC Training*** Powerpoint (PPT) presentation is attached.	Paul Zykofsky
10:15	***ATRC Presentation – TIMS Updates for SRTS and ATP*** Powerpoint (PPT) presentation is attached.	Ted Davini (for Jill Cooper)
10:35	***ATRC Presentation – ATP Statewide Bicycle & Pedestrian Database*** Powerpoint (PPT) presentation is attached.	Rye Baerg
10:55	***Questions on ATRC Presentations*** TIMs is 100% accessible to the public.	All
11:30	***TAC Member – ATRC Discussion***	All
12:30PM	***Lunch***	All
1:30	***Benefit Cost Tool*** Powerpoint (PPT) presentation is attached.	Chris Williges
2:15	***Project Delivery Report*** Report is attached.	Jaime Espinoza
2:30	***Cycle 3 Update*** The CTC and Caltrans will work together to evaluate deliverability.	Laurie/Caltrans
2:45	***Cycle 3 Evaluation Process*** There will be 2 person teams, an enhanced training process and 3 evaluation trainings. Scoring Rubrics were sent out on May 20th.	Laurie/Caltrans
3:20	***Closing Remarks***	April/Laurie
3:30	***Meeting Adjourn***	All

Action Items

Count	Action Item	Lead	Date Identified	Status
1	Detailed Project Delivery Report	Jaime Espinoza	11/2015	Ongoing
2	Develop lists for ineligible and lower-priority items (I & NI)	Ted Davini & Kevin Atkinson	11/2015	Ongoing
3	Develop recommended/reasonable item and/or component costs/ranges for major eligible items. Design tips for potential applicants – also considered	Ted Davini & Kevin Atkinson	11/2015	Ongoing

Active Transportation Program
Technical Assistance Committee
May 24, 2016

Overview of Non-Infrastructure/Safe Routes to School Technical Assistance and Training Services Provided to the Caltrans Active Transportation Resource Center

Mary Strode, M.S.
California Department of Public Health

Public Health Supports 5 ATP Goals

- Increase the proportion of biking and walking trips
- Increase safety for non-motorized users
- Increase mobility for non-motorized users
- Advance the efforts of regional agencies to achieve greenhouse gas reduction goals
- Enhance public health, including the reduction of childhood obesity through the use of projects eligible for Safe Routes to Schools Program funding

CDPH's Role in the Active Transportation Resource Center (ATRC)

- Implement a statewide project to assist local communities with creating, implementing, and evaluating active transportation non-infrastructure (NI) programs, including Safe Routes to School (SRTS) programs, by providing **targeted trainings**, **technical assistance**, and **resources**.
- Support **Active Transportation Program (ATP) NI and SRTS awardees and applicants** by providing SRTS and bike/pedestrian safety education, resources, and health related program expertise.

Background

- Based in downtown Sacramento
- Housed in the CDPH Safe and Active Communities Branch
- Builds on the success of the previous Caltrans-funded SRTS Technical Assistance Resource Center (TARC)
- Team consists of 5 SRTS/NI technical assistance and training experts with strong backgrounds in public health and behavior change strategies

Active Transportation Resource Center

4

Services and Products

- Technical assistance consultations
- Statewide trainings (webinars)
- Targeted trainings/presentations (webinars or in-person presentations)
- Mass communication (list-serv)
- Robust website www.casaferoutestoschool.org (content development)
- Identification, development, dissemination of tools and resources

Active Transportation Resource Center

5

Service Delivery Highlights

- Technical Assistance Consultations
- Webinars
- Targeted Trainings/Presentations
- E-News Bulletins
- Website Content/Resource Identification & Development
- Assessment & Evaluation

Active Transportation Resource Center

6

Service Delivery Highlights: **Technical Assistance Consultations**

- Wide range of technical assistance provided
- Complex, evidence-informed, tailored to requestor needs and circumstances
- 281 TA consultations provided between October 2015 and April 2016 (7 months)
  - Average 40 consultations per month

Active Transportation Resource Center

7

Service Delivery Highlights: **Webinars**

- 5 Webinars provided to-date
  - December 2015: *Introduction to the Caltrans Active Transportation Resource Center* (2 kick-off webinars)
  - February 2016: *Active Transportation Program Non-Infrastructure Projects – Stories from the Field*
  - March 2016: *Safe Routes to School in Tribal Communities in California*
  - May 2016: *A Closer Look at "Safe Routes to School Programs in Rural California: A Guide for Communities and Partners"*
- 224 participants first 4 webinars (ave. 54 partipants per webinar)
- Consistently positive webinar evaluation results

8

Webinar & Website Focus: Promote ATRC Guidance Documents

- California School Crossing Guard Training Guidelines
- Creating Safe Routes to School Programs in Tribal Communities in California
- Safe Routes to School Programs in Rural California: A Guide for Communities and Partners
- California Pedestrian and Bicycle Safety Curriculum for Grades 4 and 5
- Safe Routes to School and Student Leaders: Facilitator's Guide to Engaging Middle School Youth
- Crosswalk: Where the Needs of School Principals and Safe Routes to School Programs Intersect

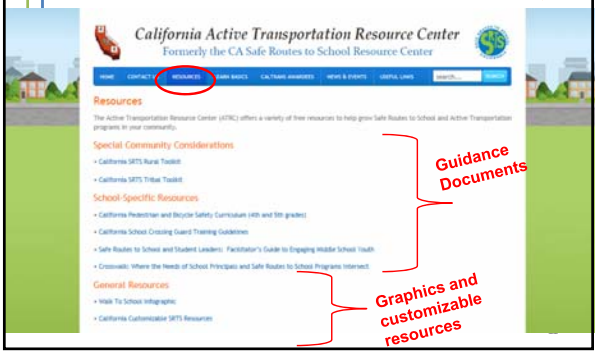
9

Service Delivery Highlights: **Website**

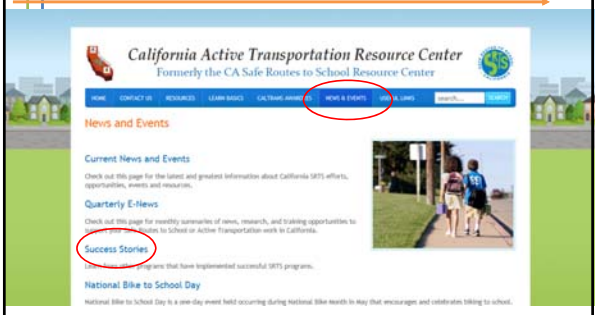
www.CAsaferoutestoschool.org

10

Service Delivery Highlights: **Website**



Service Delivery Highlights: **Website**



12

Service Delivery Highlights: **E-News Bulletins**

- Quarterly E-News Bulletins
  - February 2016
  - April 2016
  - Various brief announcements as needed
- Over 940 contacts reached per E-News
- Examples of topics include:
  - May is National Bike Month
  - ATRC resources
  - ATP Cycle 3 update and trainings
  - Local agency trainings

13

Assessment and Evaluation

- Tracking and monitoring activities
- Assessing training, resources, technical assistance needs of NI/SRTS ATP projects to inform resource development and service delivery
- Conducting customer satisfaction surveys to determine if our services are of high quality, effective and useful
- Identifying successful strategies and best practices

Active Transportation Resource Center

Service Delivery Highlights: **Program Evaluation**

- Assessment and Evaluation
  - Needs Assessment (Phase I) – December 2015 through January 2016
    - 48 phone interviews with Cycle 1 and 2 NI/SRTS projects
  - Needs Assessment + Customer Satisfaction Survey (Phase II) – June-July 2016
    - Online survey of Cycle 1 and 2 NI/SRTS projects

Active Transportation Resource Center

5 Staff Provide Caltrans District Coverage

Mary Strode, MS
CT Districts 5, 6, 9

Victoria Custodio, MPH
CT Districts 4 and 7

Jane Kemp, MA
CT Districts 3 and 10

Justine Hearn, MA
CT Districts 1 and 2

Kristin Haukom, MPH
CT Districts 8, 11, 12

Contact Information

Mary Strode, MS
Districts 5, 6, and 9
Phone: 916-552-9943
Mary.Strode@cdph.ca.gov

Victoria Custodio, MPH
Districts 4 and 7
Phone: 916-552-9833
Victoria.Custodio@cdph.ca.gov

Kristin Haukom, MPH
Districts 8, 11, and 12
Phone: 916-552-9827
Kristin.Haukom@cdph.ca.gov

Justine Hearn, MA
Districts 1 and 2
Phone: 916-552-9822
Justine.Hearn@cdph.ca.gov

Jane Kemp, MA
District 3 and 10
Phone: 916-552-9832
Jane.Kemp@cdph.ca.gov

17

Active Transportation Resource Center

18

ACTIVE TRANSPORTATION RESOURCE CENTER (ATRC)

Overall Activities

- Manage the ATRC
- Develop a website and maintain an electronic mailing list
- Support the ATP Technical Advisory Committee
- Conduct a needs assessment
- Provide training courses and technical services
- Develop resource materials
- Provide assistance with the ATP application eligibility review

Any questions?

Active Transportation Program:

Support for Small Agencies and Disadvantaged Communities

Caltrans
California Bicycle Coalition
California Walks
Local Government Commission
Rails-to-Trails Conservancy

Consultant Team and Project Goal

- Local Government Commission (Team Leader)
- California Bicycle Coalition
- California Walks
- Rails-to-Trails Conservancy

Project Goal:

Provide DACs with a better understanding of the ATP process and the role of active transportation in creating a safe, sustainable, integrated, and efficient transportation system.

Overview of Tasks

Assess Technical Assistance Needs → **Develop & Deliver 1 Full-Day Workshop in each Caltrans District**

Review DAC Eligibility for Each Application → **Final Report and Recommendations**

Key Lessons – Survey 1

Survey sent to 46 DAC applicants from Cycle 1; 15 responded (33%)

Key Challenges:

- **71%** - estimating increases in walking/biking;
- **36%** - demonstrating benefits to DACs; and
- **21%** - evaluating pedestrian and bicycle safety AND obtaining relevant public health data

Major Workshop Curriculum Topics

Workshop Focus: developing impactful projects, plans and programs that meet the goals of ATP

1. ATP Goals and the Land Use Connection
2. Policy and Planning Context
3. Leveraging Data to Understand Active Transportation Needs
4. Predicting and Documenting Bicycling/Walking
5. Project Design and Prioritization
6. Coordinating with Public Health
7. Effective Community Engagement
8. Creating Effective Non-infrastructure Programs
9. Developing Active Transportation Plans

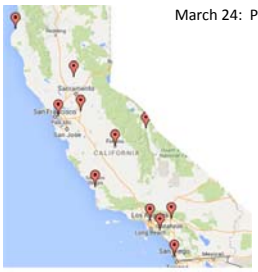
Workshop Resources

Over ***150 tools and resources*** placed on web page, including:

- Citations to the most relevant and recent case studies research and reports
- Links to a variety of benefit/cost tools
- Guidebooks on bicycle and pedestrian data collection and estimation
- Detailed listing of additional funding sources.

All presentations and resources from the workshops are available online by visiting: http://www.lgc.org/atp-support/resources.

Dates and Locations of Workshops



March 24: Pilot Workshop – **District 3, Marysville**
March 27: **District 8, San Bernardino**
March 31: **District 7, Los Angeles**
April 2: **District 9, Bishop**
April 7: **District 5, San Luis Obispo**
April 7: **District 6, Fresno**
April 13: **District 2, Redding**
April 15: **District 1, Eureka**
April 20: **District 10, Stockton**
April 21: **District 4, Oakland**
April 29: **District 12, Irvine**
May 4: **District 11, San Diego**

Workshop Feedback

- **98.8%** agreed or strongly agreed that they ***increased their knowledge and understanding*** of how to develop effective transportation projects, plans or programs.
- **98.8%** agreed or strongly agreed that they ***learned about resources*** that will help their community compete for ATP funding.
- **99.6%** agreed or strongly agreed that they would ***recommend this workshop*** or a similar workshop to others.

"The trainings were long, but overall made the difference in the success of our proposal."

Impact of Workshops on DAC Applicants

Among surveyed DAC applicants, we compared success rates in Cycle 2 versus Cycle 1 ATP:

- Of the 23 respondents who attended our DAC workshops, **52% (12 of 23) were successful in Cycle 2 after being unsuccessful in Cycle 1**
- Of the 82 respondents who did NOT attend our DAC workshop, **15% (12 of 82) were successful in Cycle 2 after being unsuccessful in Cycle 1**

Our workshop participants had ***over three times the success rate*** *of those who did not attend.*

Key Lessons – Survey 2

Survey sent to 324 DAC applicants from Cycle 2; 105 responded (33%)

Burdensome time commitment to apply:

- 72% — insufficient staffing was a moderate or significant barrier
- 69% — spent 50+ hours preparing application

Most Needed Tools and Topics:

- 58% — need more knowledge/tools to estimate levels of bicycling and walking
- Over 90% rated "Top 10 Tips for Successful ATP Applications" and "Using Safety Data" segments of our workshop as useful/very useful

Additional technical assistance needs (in addition to workshops):

- 59% — "office hours" or individualized consultant assistance
- 56% — web page with in-depth guidance
- 45% — webinar trainings

Recommendations: Scheduling and Format

Workshop Content, Timing & Scheduling

- Provide training on how to develop great projects and plans (not just "how to apply") and schedule these well before call for projects
- Partner with local agencies to boost participation
- Provide more workshops in denser districts

Length and Format

- Consider multi-day/full-day/ half-day options

"The training was extremely helpful — I would have been lost without it. I would have appreciated if we could have walked through each portion of the application and outlined the best tools to find the information that we need, and what the best answer would include."
-ATP applicant

Recommendations: Additional Support for Applicants

Customized technical assistance consultations

- Post-workshop team consultations
- On-call technical assistance
- Feedback on unsuccessful application

Guidebooks

- Resources and case studies

Web-based Trainings

"[For] seasoned applicants, more in depth online resources and office hours would be a way for those needing less general guidance to get their more specific and targeted questions answered."
-ATP applicant

Recommendations: Application Process

Simplify application preparation

- Online application and project maps
- Word limits

Additional guidance to reviewers

- Provide more guidance to ensure consistency in assessing DAC eligibility and how projects benefit DACs

Greater consideration of plans, recreational trails and non-infrastructure projects

Team Contact Information

- **Local Government Commission: Paul Zykofsky**
  pzykofsky@lgc.org; 916-448-1198 x 317
- **Rails-to-Trails Conservancy: Laura Cohen**
  laura@railstotrails.org; 510-992-4661
- **California Bicycle Coalition: Dave Snyder**
  dave@calbike.org; 415-216-7393
- **California Walks: Wendy Alfsen or Tony Dang**
  wendy@californiawalks.org; tony@californiawalks.org
  510-292-4435

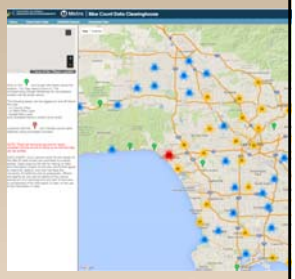
Southern California Active Transportation Database

May 24, 2016

Rye Baerg
Active Transportation &
Special Programs

Background

- Released in 2012
- Allows storage of manual counts
- Primarily focused on bicyclists



2

Original Deliverables

- Conducting Bicycle and Pedestrian Count Manual
- Count Forms
- Literature Review
- Modeling Integration White Paper
- Union Station Bike Count Report

3

Goals of the Update

- Integrate Pedestrian Data
- Improve Usability
- Improve Data Retrieval and Reporting
- Support Mobile App Integration
- Provide a Planning Tool for ATP and other Projects
- Integrate Automated Counters
- Support Regional Modeling Efforts

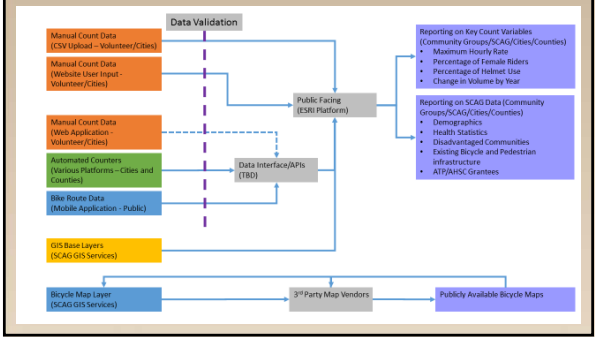
4

Functionality

- How can uploading and downloading data be easier?
- Who will the users be?
- What will they use it for?
- What kinds of data should we collect?
- Automated Counter Interface
- Applications

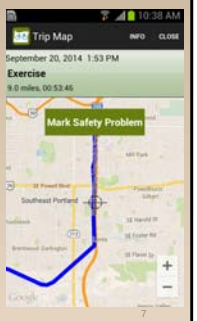
5

Preliminary Concept



Applications

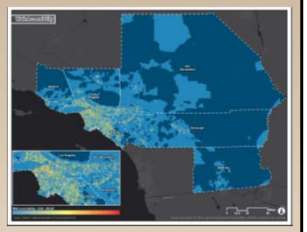
- Manual Count Web App
- Bicycle Maps
  - Create a Uniform GIS Format
  - 3rd Party Vendors
- Route Tracking Application
  - Cycletracks or Strava



7

Planning Support

- Current Rates of Walking and Bicycling
- Current Health Trends
- Existing ATP Projects
- Cities with Plans



D	County	Agency	ProjName	City	Latitude	Longitude	PlanArea?	Awarded	Cycle
1	IMP	El Centro	Prepare ATP/SR2S Plan and make bike/ped improvements	El Centro	32.784197	115.5611669	Yes	Yes	
2	IMP	Calexico	SRTS NI	Calexico	32.678950	-115.4988800	Yes	No	
3	IMP	Calexico	SRTS Infrastructure	Calexico	32.678950	-115.4988800	Yes	No	
4	IMP	Holtville	Improve bike facilities	Holtville	32.809183	-115.3717000	Yes	No	

Preliminary Timeline

- May (2016)-Kick Off
- July (2016)-Strategic Plan
- December (2016)-Beta Version
  - Database
  - Applications
  - Automated Counter Interface
- April (2017)-Public Release

9

Thank You

Rye Baerg
213-236-1866
Baerg@scag.ca.gov

10

SafeTREC Safe Transportation Research & Education Center

ITSBerkeley

TIMS Website Upgrade for SRTS and ATP Programs

ATP Technical Advisory Committee

May 24th, 2016
SafeTREC, UC Berkeley

1

Agenda

1. Transportation Injury Mapping System (TIMS)
2. SRTS Map Viewer on TIMS
3. New SRTS & ATP Tool – Phase 1
4. Proposed Updates – Phase 2
5. Discussion

2

Transportation Injury Mapping System

- TIMS provides data and mapping analysis tools and information for traffic safety related research, policy and planning
- Geocode Statewide Integrated Traffic Records System (SWITRS)
  - Calculate a latitude/longitude coordinate for each collision for mapping

http://tims.berkeley.edu

- Free account application, open to everyone
- Funded by California Office of Traffic Safety (OTS)

3

Transportation Injury Mapping System

- Available tools on TIMS

SWITRS Query & Map	SWITRS GIS Map	Data & Map Viewers	Benefit Cost Calculator
• basic summary and mapping of SWITRS data • Users can select by date, location, and other collision, party, and victim factors to produce a subset result from SWITRS	• Map approach to viewing and querying SWITRS data • Spatially select / download SWITRS subset • Generate a Collision Diagram map	• Strategic Highway Safety Plan Data Viewer • Safe Routes to School Collision Map Viewer • Motorcycle Collision Map Viewer	• Calculate benefit / cost ratio for potential safety improvement projects • Developed for Caltrans HSIP project.

4

SRTS Collision Map Viewer

- Simplified Ped/Bike collision viewer
- User selects a county, city, and school
- Ped/Bike collisions displayed along with half and quarter mile buffer zones around selected school
- Simple summary by collision severity and collision list
- Needs to be updated with current SWITRS data and school information

5

New SRTS Map Viewer – Phase 1

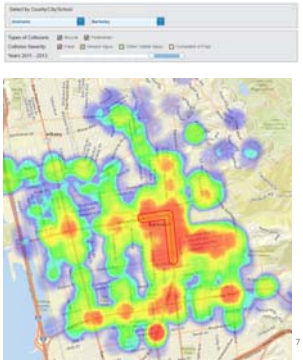
- Make the tool responsive to SWITRS data updates on TIMS
  - Currently, the tool does not have up-to-date collisions.
  - Instead of updating the data manually each time, the tool will be updated automatically linked with SWITRS update on TIMS Query & Mapping tool.
- Add the option of using provisional SWITRS data
  - CHP finalize the annual SWITRS report within 18 months.
  - The tool will include provisional SWITRS data quarterly until it becomes final by CHP
- Update school database by geocoding the address of up-to-date school information from California Department of Public Schools Database.

6

New ATP Tool – Phase 1

1. Select County and City
2. Show city Bike / Ped collision Heatmap
3. User select interest area by drawing polyline
4. Crash data summary of selected area with downloadable collision list

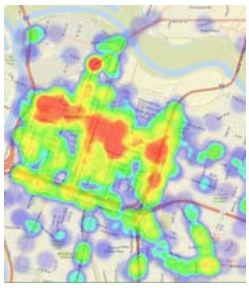
- The ATP tool will also have up-to-date SWITRS data linked to TIMS.
- Provisional Data will be also included.



7

New ATP Tool – Phase 1

Ped & Bike Collisions
Downtown Sacramento
2005-2009



Ped & Bike Collisions
Downtown Sacramento
2010-2014

8

Proposed Updates - Phase 2

- Add a user-friendly option for ATP proposals which could provide a collision diagram, collision summary and overall map.

9

Proposed Updates - Phase 2

- Develop a module of linking SRTS tool and ATP tool to Query and Map Tool on TIMS

Victim Summary

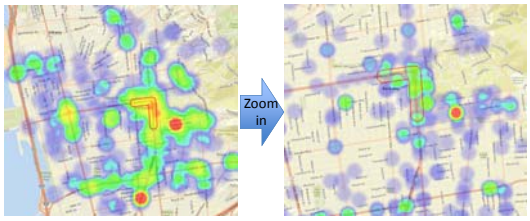
Ped Collision Summary

10

Proposed Updates - Phase 2

- Heatmap is generated dynamically on map scale

  → heat-scale changes when user change the zoom level



- Implement a static heatmap to new ATP tool

  - Allow users zoom in without heat-scale change

11

Discussion

- Questions?

Sang Hyouk Oum (shoum@berkeley.edu)
Applications Programmer, SafeTREC, UC Berkeley

Jill Cooper (cooperj@Berkeley.edu)
Co-director, SafeTREC, UC Berkeley
510-643-4259

12

© 2015 HDR, Inc., all rights reserved.

Active Transportation Program – Technical Advisory Committee

Benefit-Cost Tool Update

Sacramento, CA
5/24/16

© 2015 HDR, Inc., all rights reserved.

Outline

- Summary of Scope and Work Plan
- Features of Current Model
- Feedback and Review
- Conceptual Framework for Updated Model
- Next Steps

Source: http://tinyurl.com/qk4ldb

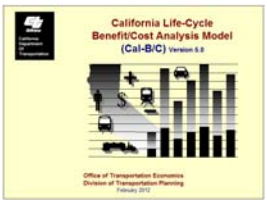
Scope Summary

Our Scope of Work

- Part of a larger effort to update the Caltrans Cal-B/C benefit-cost model
- Scope includes a number of related efforts:

  Add Features
  - Incorporate active transportation projects
  - Integrate park and ride model
  - Develop tool for evaluation of freight projects

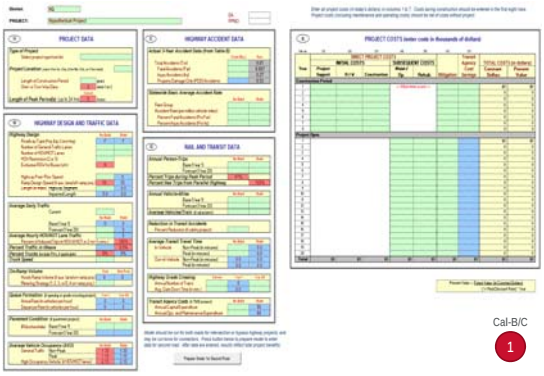
  Update and Refine
  - Enhance ITS/operations project features
  - Update values and assumptions
  - Add risk analysis
  - Complete and update documentation
- Contract continues through early 2017
- New ATP features to be ready for Cycle 4



Scope Summary

Background on Cal-B/C Model

- Developed about 20 years ago
  - In-house design
  - Updated with consultant help
- Simple, intuitive design
  - Excel spreadsheet
  - Not a black box
  - Sketch planning capabilities
- Multi-modal from the beginning
  - Includes passenger rail and bus transit projects (and related ITS)
  - Companion tool for park and ride projects
- Suite of tools in framework (Cal-B/C, Cal-B/C Corridor)
- Several updates (2001, 2004, 2009, 2012)
  - Added ITS and operational projects, pavement condition, rail-grade crossings, queuing, etc.
  - Explored bridge condition, travel time reliability, and freight

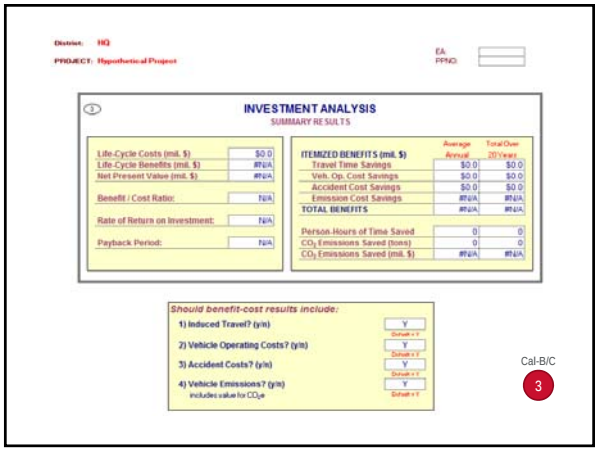


Cal-B/C

1

Cal-B/C

2



Work Plan

Overview of Active Transportation Program (ATP)

- Administered by Caltrans Local Assistance
  - Significant investment by the State
  - Highly competitive program
- Consolidation of Existing Funding Sources
  - Transportation Alternatives Program (TAP)
  - Bicycle Transportation Account (BTA)
  - State Safe Routes to School (SR2S)
- Purpose: *Encourage biking and walking*
  - Increase the proportion of active trips
  - Increase safety and mobility
  - Achieve GHG reduction goals
  - Enhance public health
  - Ensure benefits to disadvantaged communities
  - Provide broad spectrum of projects for different types of users
- Funding Cycles
  - Two cycles (March 2014, March 2015) entailed consideration of hundreds of projects
  - Benefit-cost analysis (BCA) became a requirement in Cycle 2 applications

Source: F1505 City of San Fernando Pacoima Wash Bikeway & Pedestrian Trail Application, Greenway Design – Existing Conditions (Before) and Conceptual Rendering (After).

Work Plan

Evaluation of Active Transportation Projects

- Subtask 1A: Literature Review and Identification of Methods and Applications
- Subtask 1B: Conceptual Framework and Methods

  Deliverable 1: Literature Review Findings and Suggested Methods

- Subtask 1C: Tool Development, Calibration and Testing

  Deliverable 2: Tool, Meeting with User's Group, Case Studies

- Subtask 1D: Documentation

  Deliverable 3: Updated User's Guide and Technical Supplemental to User's Guide

Source: FS05 City of San Fernando Pacoima Wash Bikeway & Pedestrian Trail Application, Greenway Design – Existing Conditions (Before) and Conceptual Rendering (After).

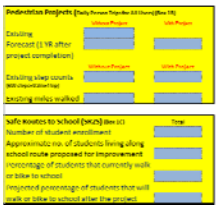
Work Plan

Evaluation of Active Transportation Projects

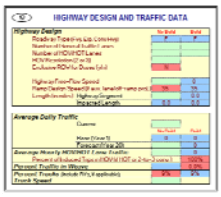
Subtasks 1A: Literature Review and 1B: Conceptual Framework

- Review existing first-generation ATP model
  - Feedback from applicants and by HDR
  - Questions of incorporating the model or reformatting, and how much the model can change

First-Generation ATP Tool



Cal-B/C Model



Work Plan

Evaluation of Active Transportation Projects

Subtasks 1A: Literature Review and 1B: Conceptual Framework

- Conduct focused review of literature to reflect latest research and fill in holes
  - Two useful sources: NCHRP Report 552 and the UK DFT WebTAG
  - Many other sources available
  - *Moving Active Transportation to Higher Ground: Opportunities for Accelerating the Assessment of Health Impacts*, Conference, April 13 -14, 2015
  - Relevant guidance
    - 2015 CTC Active Transportation Guidelines
    - Deputy Directive 64-R2 (Complete Streets)
  - MPO demand estimation methods
    - LA Metro sketch models and travel demand model
    - SANDAG travel demand model

Work Plan

Evaluation of Active Transportation Projects

National Cooperative Highway Research Program (NCHRP) Report 552, Guidelines for Analysis of Investments in Bicycle Facilities, 2006

- Report includes four main sections:
  - Estimating bicycle facility costs
  - Measuring and forecasting demand for bicycling
  - Benefits associated with use of bicycle facilities
  - Benefit-cost analysis of bicycle facilities
- Report available online at: http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_552.pdf
- Benefit-Cost Analysis tool previously available through: http://www.saferoutesinfo.org/node/980

Work Plan

Evaluation of Active Transportation Projects

UK Department for Transport, Transport Analysis Guidance (TAG)

- Relevant units and documents include:
  - TAG Unit A5.1, Active Mode Appraisal, January 2014
  - TAG Unit A4.1, Social Impact Appraisal, November 2014
  - TAG Data Book, November 2014
- TAG Unit A5.1 includes three main sections:
  - Demand forecasting
  - Calculation of key impacts (or benefits)
  - Reporting
- All units are available online at https://www.gov.uk/guidance/transport-analysis-guidance-webtag

Work Plan

Evaluation of Active Transportation Projects

Comparison of NCHRP Report 552 and UK DFT WebTAG Concepts

NCHRP Report 552

- Two core ideas:
  - Time spent cycling or walking is best indicator underlying value
  - Additional travel time to new facility is "price" cyclists are willing to pay for perceived safety and comfort of facility
- No direct reference to "trip quality" or "journey ambience," but valuation of related concepts through mobility benefits
- No attempt to evaluate specific attributes of cycling or walking environment (e.g., street lighting)
- Full value of "mobility" benefits assigned to induced trips

UK DFT WebTAG

- Journey quality as separate benefit category
- Evaluation of specific attributes of cycling and walking environment through parameters from technical literature
- Application of "rule-of-half" for valuation of induced trips
- More detailed estimation of health benefits
- Additional benefit categories recommended for estimation (e.g., reduction in absenteeism)

Work Plan

Evaluation of Active Transportation Projects

Subtasks 1A: Literature Review and 1B: Conceptual Framework

- Technical memo similar to Cal-B/C technical documentation
  - Description of Active Transportation Projects and Factors to Be Considered
  - Relevant Caltrans Guidance and Procedures
  - Benefit-Cost Analysis Literature
  - Conceptual Framework for Updated AT Model
  - Future Developments

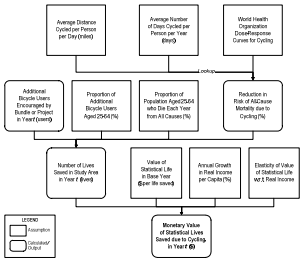
Work Plan

Evaluation of Active Transportation Projects

Subtask 1C: Tool Development, Calibration

- Structure and Logic (S&L) diagrams
- Tool options
  - Modify the existing Caltrans tool
  - Program a standalone tool
  - Develop a Cal-B/C module based on conceptual framework
- Test tool using case studies (likely from ATP project submissions)

Example of an S&L Diagram



Work Plan

Evaluation of Active Transportation Projects

Subtask 1D: Documentation

- Modify model based on comments received
- Update Cal-B/C User's Guide and Technical Supplement
- Base additions to Technical Supplement on Subtasks 1A and 1B
- Separate user's guide or new language for active transportation projects into Cal-B/C User's Guide

Current Model

Projects Analyzed in Current Model

Model follows ATP Guidelines

- Location
  - Safe Routes To School (SR2S): Increase the number of children walking and bicycling to school by improving safety
  - Non-Safe Routes To School (Non-SR2S): Does not specifically benefit public schools, but fits within the goals of ATP
- Type
  - Infrastructure: Capital investments in on- and off-street trails, signals and other physical amenities
  - Non-infrastructure: Educational, promotional and other initiatives to encourage ridership and safety
- Combinations of location and type

Source: http://tinyurl.com/q8bhjzq

Current Model

Description of Benefits

- Mobility (Existing and New Cyclists, New Pedestrians)
  - Destination-Oriented Trips
  - Value of Enhanced Conditions
  - Shorter Travel Distance
- Health (New Cyclists, New Pedestrians)
  - Increased Physical Activity
  - Lower Healthcare Costs
- Safety (Existing Cyclists, Existing Pedestrians)
  - Crash Reduction Factors
  - Safety Countermeasures
- Gas & Emissions (New Cyclists, New Pedestrians)
  - Modal Shift from Passenger Vehicles
  - Reduced Pollution
- Recreational (Existing and New Recreational Cyclists, New Recreational Pedestrians)
  - Trips for Exercise
  - Value of Recreational Trip

Source: FY505 City of San Fernando Pacoima Wash Bikeway & Pedestrian Trail Application, Greenway Design – Existing Conditions (Before) and Conceptual Rendering (After).

Current Model

User Inputs for Estimation of Benefits

Category	Variable	Unit	Infrastructure		Non-Infrastructure		Notes
			SR2S	Non-SR2S	SR2S	Non-SR2S	
General	Project Cost and ATP Requested Funds	$	●	●	●	●	
	Project Type	-	●	●	●	●	Specification of Bike Class, Pedestrian, Combination
	AADT	Ridership/Day		●			
	Non-Infrastructure Characteristics	-			●	●	Includes types of initiatives, promotional efforts, duration of program, age of users, etc. to derive projected new riders
Mobility	Demand Estimation	Ridership/Day	●	●			Includes commuter daily bike/pedestrian ridership forecasts with and without project
Health	Demand Estimation	Ridership/Day	●	●	●	●	Includes daily bike/pedestrian ridership forecasts with and without project
Safety	Crash Data	Crashes/Year	●	●	●	●	Includes number of fatalities, injuries, PDOs for the last 5 years. Annual average is derived to estimate safety annual benefits.
Gas & Emissions	Demand Estimation	Ridership/Day	●	●	●	●	Projected new users is required to estimate fuel and emissions saved
Recreational	Demand Estimation	Ridership/Day		●			Includes daily recreational bike/pedestrian ridership forecasts with and without project

Current Model

Parameters Driving Benefits

Benefit Category	Variable	Value	Unit	Source
Mobility	Users that walk for mobility purposes	85	%	The 2012 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, Highlights Report.
	Value of Time (Adults)	13.03	$/Hour	BLS
	Value of Total Pedestrian Environmental Impacts	1	$/Trip	Heuman, 2006
	Bike Class (I, II, and III)	Detailed by class	Minutes/Trip	NCHRP 552. Time that commuters are willing to spend to travel.
Health	Value of Health	146	$/Year/Person	NCHRP 552.
Safety	Cost of Crash (Fatality, Injury, PDO)	By Crash Type	$/Crash	Appendix D, Local Roadway Safety: A manual for CA's Local Road Owners Caltrans
	Crash Reduction Factors	By countermeasure	%	Model Assumption
Gas & Emissions	Price of Gasoline (incl. tax)	3.41	$/Gallon	EIA
	Gasoline Consumption	0.05	Gallon/Mile	Active Transportation for America
	Price of CO_2	0.01	$/lb	Interagency Working Group on Social Cost of Carbon, United States Government
	Bike Miles Traveled	1.5	Miles/Trip	CA Household Travel Survey
	Walk Miles Traveled	0.3	Miles/Trip	
	Diversion Rate	50	%	New users and cyclists choosing not to drive their cars. Model Assumption
Recreational	Biking Recreational Days	124	Days/Year	World Health Organization (observed number of days cycled in Stockholm)
	Walk Recreational Days	365	Days/Year	Model Assumption
	Users that walk for recreational purposes	15	%	The 2012 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, Highlights Report.
	Value of Recreational Time	By user type	$/Trip	For new and existing bicycling users and all walking users. NCHRP 552
General	Discount Rate	4	%	Cal-B/C Model
	Population Annual Growth	2	%	Average Annual Growth. CA 1955-2011.
	Days Worked	250	Days/Year	Used for Mobility and Gas & Emission Benefits. Daily Trips used for Health Benefits.
	Daily Trips	2	Trips/Day	

Current Model

Results Summarized in Current Model

- Net Present Value (NPV) of 20 years of annual net benefits and costs
- Distribution of 20-year benefits by category
  - Mobility
  - Health
  - Recreational
  - Gas & Emissions
  - Safety
- Benefit-Cost Ratio (BCR)
  - Net present value compares discounted benefits to:
    - Discounted total costs
    - Discounted amount of funds requested

20 Year Invest Summary Analysis	
Total Costs	$1,635,522
Net Present Cost	$1,572,617
Total Benefits	$18,893,247
Net Present Benefit	$12,512,611
Benefit-Cost Ratio	7.96

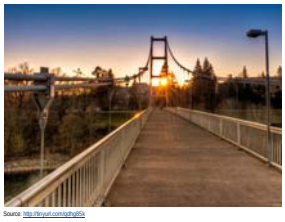
20 Year Itemized Savings	
Mobility	$5,083,639
Health	$312,929
Recreational	$1,631,517
Gas & Emissions	$52,040
Safety	$11,813,122

Funds Requested	$1,375,394
Net Present Cost of Funds Requested	$1,322,494
Benefit Cost Ratio	9.46

Feedback & Review

Round 2 Comments on Existing ATP Model

- User Features
  - Conflicting Perspectives: "Minimal inputs required" and "Fair and objective" vs. "Black box"
  - Recommendations: "Improved formatting" and "Better instructions"
- Data and Parameters
  - Labeling makes data entry confusing
  - Concerns about inputs requested (e.g., forecasting)
  - Small or rural communities are at a disadvantage
- Methodology
  - Similar to NCHRP 552
  - Some applicants found assumptions and methodologies to be logical and appropriate
  - Need more consistency in collecting numbers and forecasts
  - Safety benefits (inclusion of PDO crashes)
- Results and Interpretation
  - Difficulties in interpreting results
  - Missing benefit categories (travel time, property values)
  - Impact of BCA on application (low, intersections rated high)



Source: http://tinyurl.com/qzhg6l5t

Feedback & Review

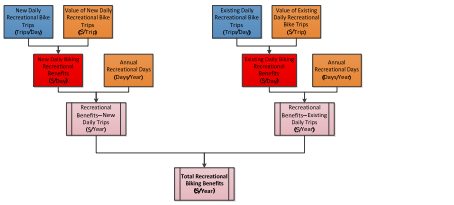
Additional Observations

- Specification of Inputs
  - Applicability of mobility parameters and city-specific parameters (e.g., 2.0% default growth vs. 0.5% in LA)
  - Select different construction start and end dates
- Calculation Methodology
  - Discount methodology (benefits should start after construction)
  - Forecast methodology (benefits grow with population)
  - SR2S safety benefits (may double count)
  - Consistent crash rate history (5 years or 1 year)
- Other Comments
  - Discounting benefit categories
  - Potential time savings benefits
  - Hardcoding of model parameters

Source: http://tinyurl.com/ph7k5dk

Feedback & Review

Example of Recreation Structure & Logic Diagram



GLOSSARY

Daily Bike Trips—This is not clearly defined in the model; HCM assumes that this accounts to the total number of bike trips taken daily.Bikers are assumed to take2 trips daily(which is the equivalent of a round trip).

Annual Recreational Days—Potential Number of Recreational Time Outdoors. The World Health Organization's HEAT for cycling report a number of 124 days, which is the observed number of days cycled in Stockholm, Sweden.

Value of Recreational Trips—The typical day involves about 1 hour of total bicycling activity, which is valued at $15, based on a wide variety of studies of outdoor recreational activities (Appendix G, NCHRP 552)

LEGEND

- User Inputs
- Model Calculations
- Model Assumptions
- Output

Conceptual Framework

New Model Structure

- Program new model
  - Same benefits calculated for all projects
  - Parameters page
- Same look and feel as other Cal-B/C models
- Single spreadsheet for ATP projects
- New sources for benefit estimates

Source: http://bizzi.com/2013/04/17/the_best_bike_rides_in_los_angeles.php

Conceptual Framework

Benefits in Model

- Mobility
  - Cycling – Hood, et al. (2011) marginal rate of substitution
  - Pedestrians - Heuman, D. (2005) stated preference surveys
- Health
  - Reduced Mortality – UK TAG (takes into account distance)
  - Absenteeism – World Health Organization, UK TAG
- Recreation – excluded due to potential overlap with health benefits
- Safety – UK TAG, considered only when safety features are added
- Reduced Vehicle Use
  - Air Quality & GHG – Cal-B/C
  - Safety – Cal-B/C
  - Out-of-Pocket Costs – excluded due to potential overlap with mobility

Conceptual Framework

Structure of Conceptual Framework

- Narrative Description of Data Sources and Assumptions
- Detailed Calculations
  - Beneficiaries
  - Measure of Impact
  - Equation
- User Inputs
- Model Parameters
- Example of Calculation

Conceptual Framework

Detailed Calculations – Cycling Mobility

Beneficiaries: Trips • P_{CB} • AF

Where:

- Trips = One way journey, which is measured in the number of user counts
- P_{CB} = Proportion of bike trips for commuting purposes
- AF = Annualization Factor

Measure of Impact: $D_{TB} \cdot (1 - RA_{MRS}) \cdot (1/ MPH_{TC})$

Where:

- D_{TB} = Mean distance traveled per user, per trip for Cyclists in California
- RA_{MRS} = Marginal Rate of Substitution
- MPH_{TC} = Mean speed, in miles per hour, per trip per user in California
- $(1/ MPH_{TC})$ = Pace or mean travel time for a given distance

Total Annual Mobility Benefits = $[\text{Trips} \cdot P_{CB}] \cdot [D_{TB} \cdot (1 - RA_{MRS}) \cdot (1/ MPH_{TC})] \cdot [\text{VOT}]$

Conceptual Framework

User Inputs – Cycling Mobility

Variable	Definition	Value	Unit	Source
Trips	One way bike journeys, which is measured in the number of Bike Counts	#	Trips/Day	Provided by User

Conceptual Framework

Model Parameters – Cycling Mobility

Variable	Definition	Value	Unit	Source
RA_{MRS}	Marginal Rate of Substitution	Bike Class I: 0.57 Bike Class II: 0.49 Bike Class III: 0.92	Ratio	Hood et al, (2011)
MPH_{TC}	Mean speed, in miles per hour, per trip per Cyclist in California	11.8	Miles per hour	Broach et al. (2012)
VOT	Value of Time, in $ per hour	Based on CA Median Wage	$ per hour	Consistent with other Cal-B/C values of time
D_{TB}	Mean distance traveled per user, per trip for Cyclists (in California)	1.5	Miles	Computed from California Household Travel Survey
P_{CB}	Proportion of bike trips for commuting purposes	5%	%	National Highway Transportation Survey

Conceptual Framework

Example of Calculation – Cycling Mobility

- **Individual Mobility Benefit**
  - Construction of 10 miles of Bike Class I
  - The average daily commuter trip along the corridor is 5 miles
  - The average commuter speed is 11.8 miles/per hour
  - The Marginal Rate of Substitution is 0.57
  - The value of time is $13.03 per hour
  - **The Individual Mobility Benefit per day: $ 2.4 [5 • (1 - 0.57) • (1/11.8) • 13.03]**
- **Annual Bike Mobility Benefit**
  - 50 commuter trips a day
  - Annualization factor of 300
  - **The Annual Mobility Benefit per year: $35,612 [2.4 • 50 • 300]**

Next Steps

New Cal-B/C AT for Round 4

- Finalize conceptual framework
- Develop model and calibrate
- Prepare documentation

Source: http://tinyurl.com/mv5qbm

Active Transportation Program
Programmed vs. Allocated
Project Status
April 2016

April 2016

BACKGROUND:

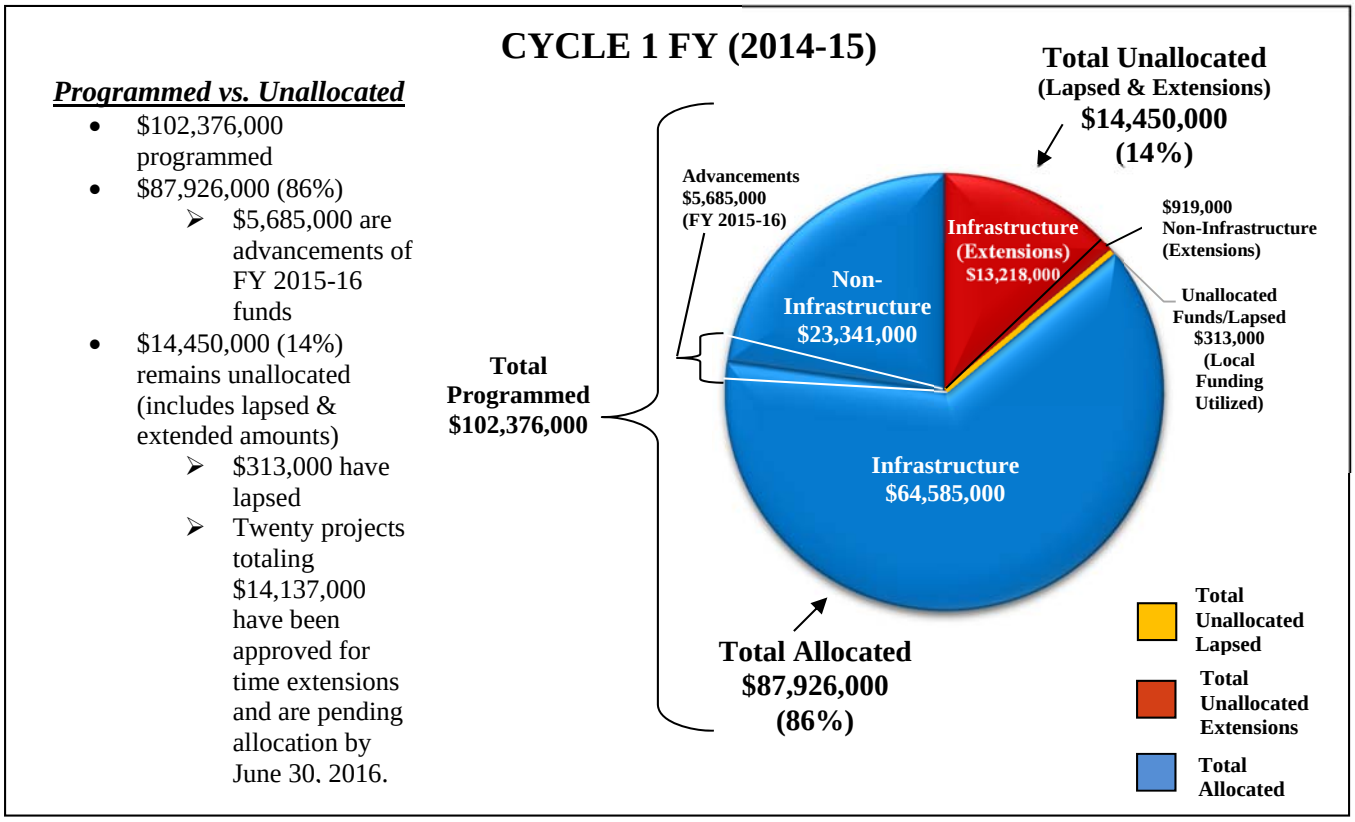
The California Department of Transportation (Caltrans) is presenting this item for information purposes only. The item provides the status of the Active Transportation Program (ATP) projects programmed in Fiscal Year (FY) 2014–15 and FY 2015-16. These projects are subject to timely use of funds as required by California Transportation Commission (Commission) Guidelines.

As of March 24, 2016, the Commission has programmed $368,561,000 to fund a total of 276 ATP projects for two FY's, FY 2014–15 and FY 2015–16. The statewide and small urban rural projects were programmed in August 2014; MPO projects were programmed in November 2014. Amendments to the MPO programmed projects were made during the May and June 2015 Commission meetings. There are two remaining Commission meetings for the remaining project funds to be allocated or extensions requested.

SUMMARY:

FY 2014–15

As of March 24, 2016, for FY 2014–15, there are $102,376,000 funds programmed on 188 ATP projects. Projects programmed for funds in FY 2014–15 may also have funds programmed in FY 2015–16. Nine project phases totaling $5,685,000 are advancements from FY 2015-16. To date, no projects have been completed.



Projects may be programmed in one or more of the following phases: Environmental Studies & Permits (PA&ED), Plans, Specs & Estimates (PS&E), Right of Way (RW) and Construction (CON). Although each project consists of four phases, most projects are not necessarily programmed for all four phases. Projects typically request fund allocations individually as each phase of the project is completed.

Programmed vs. Allocated Phase Breakdown FY 2014-15

ATP Program

Infrastructure & Non-Infrastructure

Programmed			*Allocated*			*Unallocated*		
Phase	**# of Program Phases**		**Phase**	**# of Allocated Phases**	**Allocated Amt.**	**Phase**	**# of Unallocated Phases**	**Unallocated Amt.**
PA&ED	53	$18,590,000	**PA&ED**	53	$18,590,000	**PA&ED**	0	$0
PS&E	94 (2)	$13,441,000	**PS&E**	81 (2)	$9,774,000	**PS&E**	13	$3,667,000
RW	20	$ 1,661,000	**RW**	12	$1,247,000	**RW**	8	$414,000 (3)
CON (IF)	31 (2)	$44,424,000	**CON (IF)**	24 (2)	$34,974,000	**CON (IF)**	7	$9,450,000
CON (NI)	55 (1) (2)	$24,260,000	**CON (NI)**	52 (1)(2)	$23,341,000	**CON (NI)**	3	$919,000
TOTAL	**253**	**$102,376,000**	**TOTAL**	**222**	**$87,926,000**	**TOTAL**	**31**	**$14,450,000**

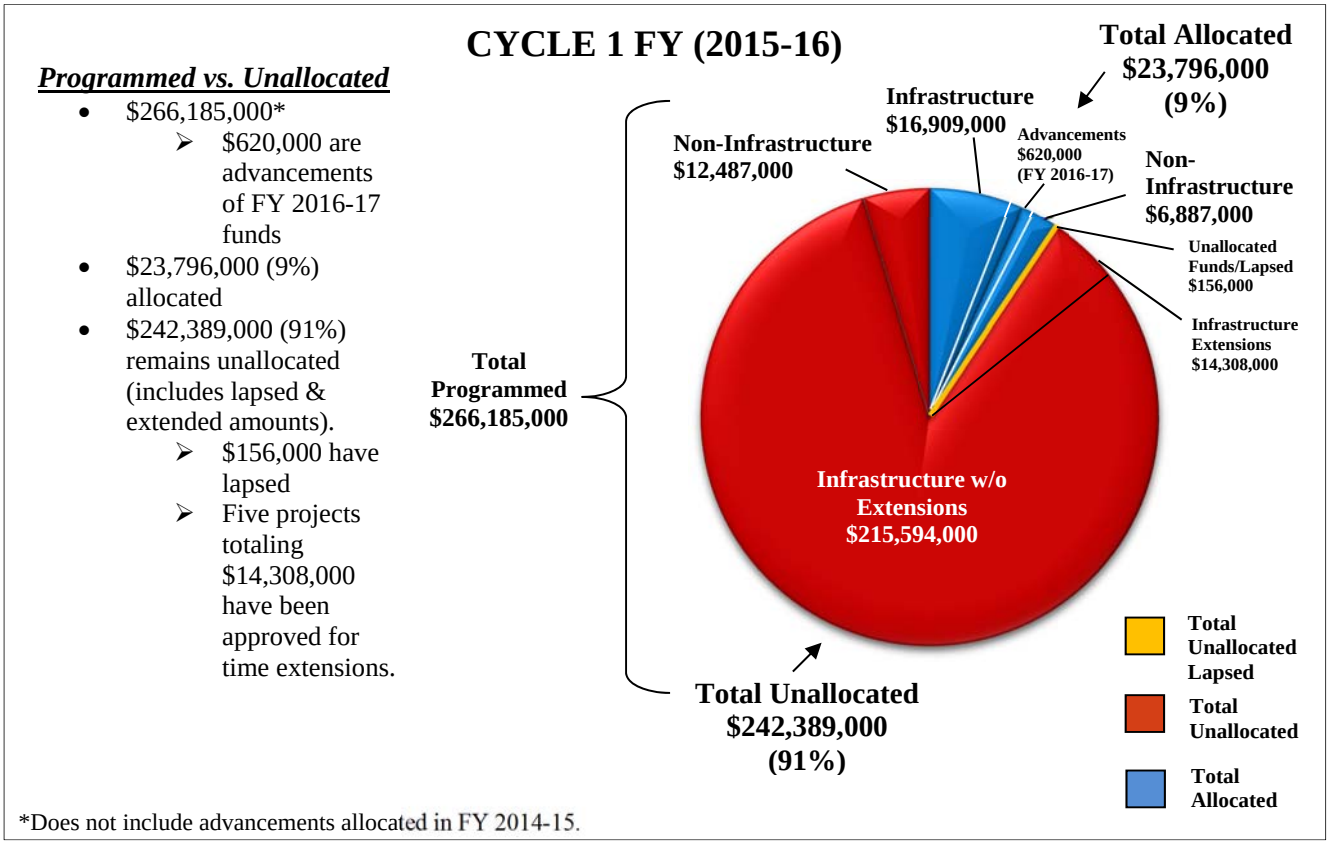
(1) Includes the State Technical Assistance Resource Center (TARC)
(2) Includes Advancements
(3) Includes Lapsed Amounts

Projects may be Infrastructure (IF), Non-Infrastructure (NI) or both. NI projects are allocated in the CON Phase only. For the FY 2014–15 CON Phases, $24,260,000 of the programmed amount is NI, $23,341,000 allocated and $919,000 unallocated.

In summary, as of March 24, 2016, the Commission has allocated 86 percent of FY 2014–15 programmed funds. Twenty-five project phases (20 projects) in the amount of $14,137,000 have been approved for time extensions and are pending allocations. A total of $313,000 for six projects phases have lapsed. The local agency elected to use local funding for these project phases. These projects are still active and are programmed for CON funds in FY 2015–16.

FY 2015–16

As of March 24, 2016, for FY 2015–16, there are $266,185,000 funds programmed on 196 ATP projects. Projects programmed for funds this FY may also have funds programmed in FY 2014–15. Three project phases totaling $620,000 are advancements from FY 2016-17 Cycle 2 ATP programmed funds.



Programmed vs. Allocated Phase Breakdown FY 2015-16

ATP Program

Infrastructure & Non-Infrastructure

Programmed			*Allocated*			*Unallocated*		
Phase	**# of Program Phases**	**Prog. Amt.**	**Phase**	**# of Allocated Phases**	**Allocated Amt.**	**Phase**	**# of Unallocated Phases**	**Unallocated Amt.**
PA&ED	6	$499,000	**PA&ED**	5	$199,000	**PA&ED**	1	$300,000
PS&E	26	$8,377,000	**PS&E**	12 (2)	$1,466,000	**PS&E**	14	$6,911,000 (3)
RW	17	$8,284,000	**RW**	5	$195,000	**RW**	12	$8,089,000
CON (IF)	165	$231,688,000	**CON (IF)**	23	$15,049,000	**CON (IF)**	142	$216,639,000
CON (NI)	45 (1)	$17,337,000	**CON (NI)**	15 (1)(2)	$6,887,000	**CON (NI)**	30	$10,450,000
TOTAL	**259**	**$266,185 ,000**	**TOTAL**	**60**	**$23,796,000**	**TOTAL**	**199**	**$242,389,000**

(1) Includes the State Technical Assistance Resource Center (TARC)
(2) Includes Advancements
(3) Includes Lapsed Amounts

Projects may be Infrastructure (IF), Non-Infrastructure (NI) or both. NI projects are allocated in the CON Phase only. For the FY 2015-16 CON Phases, $17,337,000 of the programmed amount is NI, $6,887,000 allocated and $10,450,000 unallocated.

In summary, as of March 24, 2016, the Commission has allocated $23,796,000 of the FY 2015-16 programmed funds. Five project phases (5 projects) in the amount of $14,308,000 have been approved for time extensions. One hundred ninety six phases (156 projects) will need to request allocations or time-extensions. The deadline to request for FY 2015–16 funds is June 30, 2016. To date, no projects have been completed.