

Traffic Control Devices Pooled-Fund Study Charter

1 Guiding Principles

The goal of the Traffic Control Device Pooled-Fund Study (TCD PFS) is to assemble a consortium composed of regional, state, and local entities, appropriate organizations, and the Federal Highway Administration (FHWA) to 1) identify human-centered and operational issues that are common among Traffic Control Device (TCD); (2) establish a systematic procedure to select, test, and evaluate approaches to novel TCD¹ concepts as well as incorporation of results into the MUTCD; (3) select novel TCD approaches to test and evaluate; (4) determine methods of evaluation for novel TCD approaches; (5) initiate and monitor projects intended to address evaluation of the novel TCDs; (6) disseminate results; and (7) assist in MUTCD incorporation and implementation to operators and managers.

2 Scope

The TCD Consortium will focus on systematic evaluation of novel TCDs, employing a consistent process that addresses human factors and operations issues for each TCD idea. Providing local and state agencies quicker response to their needs and quicker response to new technologies with the right assessment skills and tools will enable consistent TCD idea identification and evaluation. TCD Consortium efforts will address TCD issues identified by local and state jurisdictions, industry, and organizations and aid in the compliance to the MUTCD rule-making process and incorporation of novel TCDs into the MUTCD. Within these broad topic areas, the following are offered as examples of issues that have been addressed by the TCD Consortium:

- Pavement Markings for Speed Reduction*
- Navigation Signs for Roundabouts*
- Pedestrian Countdown Signals
- Colors for Transponder Controlled Tollbooth Lanes*
- Evaluation of Selected Symbol Signs*
- Alternative Flashing Patterns
- Enlarged Pedestrian Signal Evaluation
- Diagrammatic Guide Signs*
- Roundabout Signs and Markings*

(* denotes research results included in the MUTCD)

3 Projects

Ultimately, the purpose of the TCD PFS is to initiate projects that address human-centered and operational issues associated with novel Traffic Control Devices. These evaluation projects may focus on conducting analytical studies, driver-in-the-loop studies, or field studies, or accepting other completed research before acting upon considerations concerning the incorporation of

¹ Generic versions of potential devices may be tested, but not a specific potential device or a patented device.

novel TCDs into the MUTCD. One key to the success of the TCD PFS will be the identification and prioritization of novel TCDs that are of interest to the TCD PFS Members and the larger TCD community.

To ensure achievement of this objective, consensus will be the foremost criterion for project selection. The definition and selection of projects will be the product of consensus building. When all participants cannot agree on particular projects, project definition will focus on identification of a several projects that, taken as a whole, are of interest to all participants. Figure 1 provides an overview of the life cycle of a TCD Pooled-Fund Study project. The four stages of a project life cycle are: (1) identify and prioritize needs, (2) project development and selection, (3) project management, and (4) TCD evaluation. Each of the stages in the life cycle of a project is discussed separately.

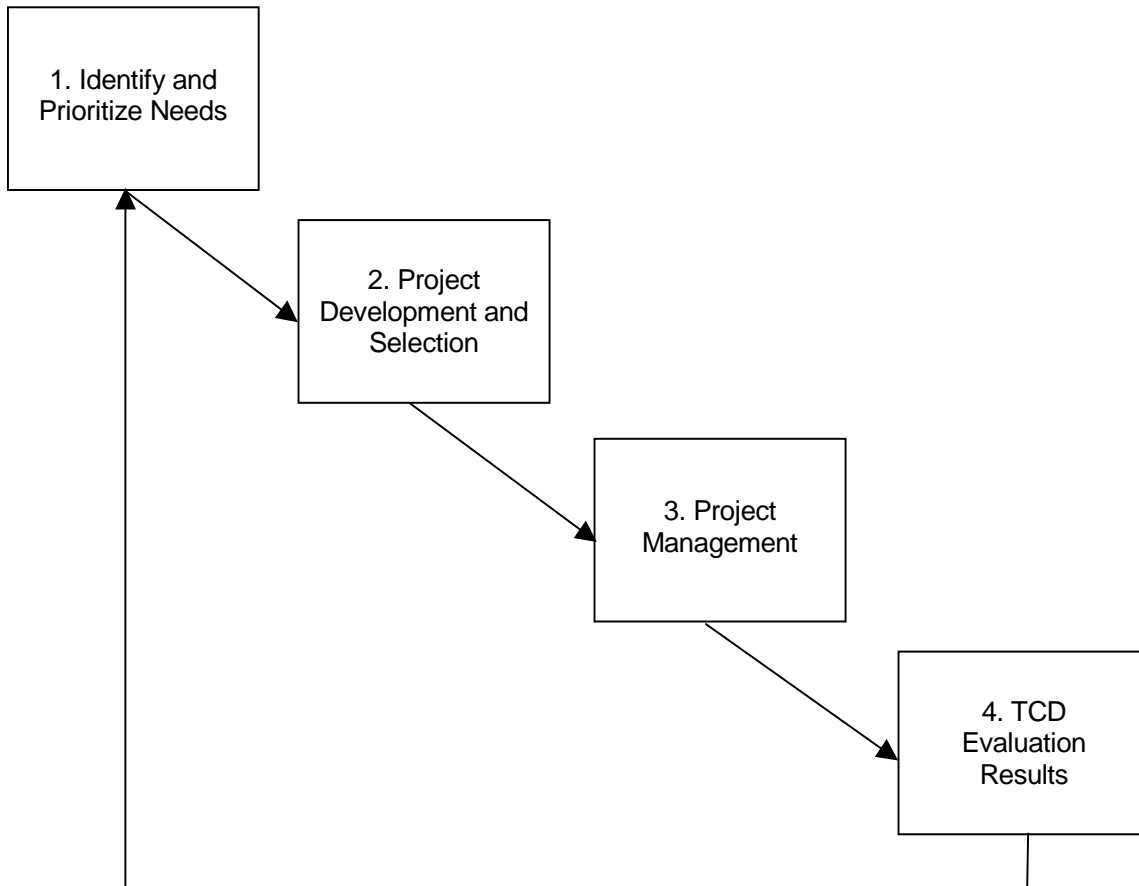


Figure 1. Overview of the life cycle of a TCD Pooled-Fund Study project.

3.1 Identify and Prioritize Needs

Figure 2 provides a simplified overview of the process to be used for to identify, and then prioritize, novel TCD human factors and operations research needs. This is an expansion of the first box in Figure 1. FHWA representatives from the Office of Safety Research and Development will canvass Pooled-Fund Study members, the committees of various organizations, and review other related initiatives, current and past, to identify critical TCD

needs. The FHWA will synthesize the information compiled from this review and will prepare a brief synopsis that will be mailed to each TCD PFS participant.²

In addition to reviewing and commenting on the synopsis, the TCD PFS Members will prioritize the identified needs according to their perceptions and the needs of the organizations that they represent. The overall ratings of the participants will be summarized by FHWA for consideration by the participants in the next step of the life cycle, Project Development and Selection.

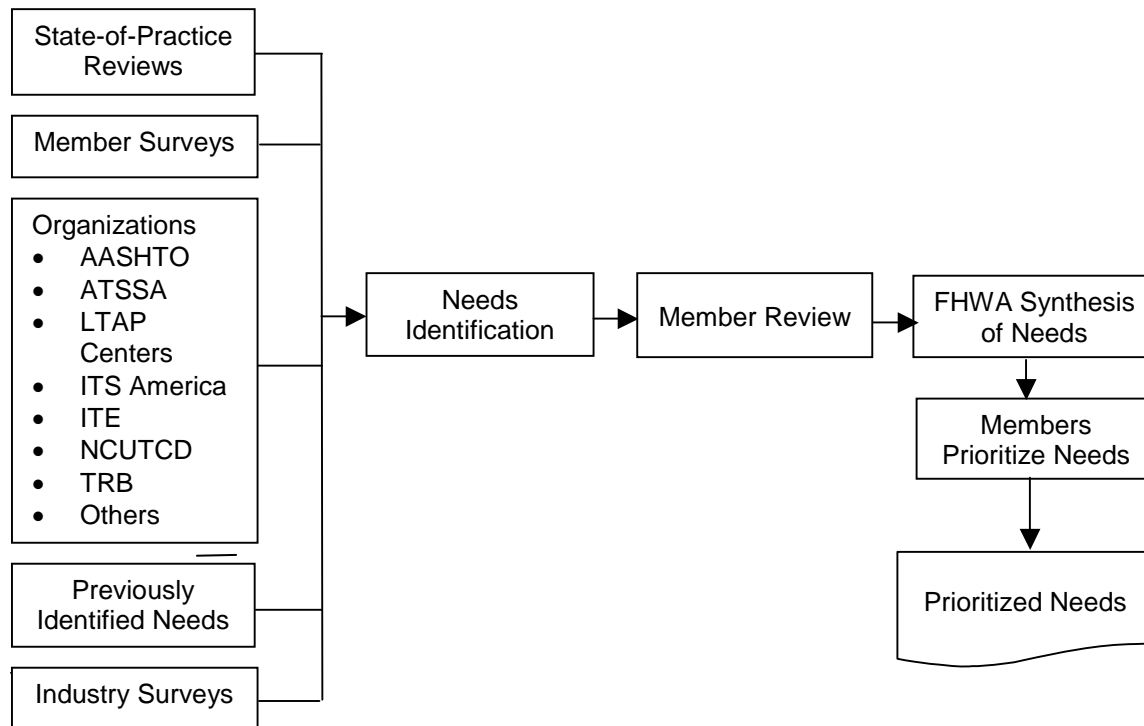


Figure 2. Process to identify and prioritize needs.

3.2 Project Development and Selection

Figure 3 illustrates the stage in which TCD PFS participants develop and select the project(s) to conduct. This is an expansion of the second box in Figure 1. This stage will take place during a two-day annual meeting and other meetings as appropriate of the Members, including teleconferences, other electronic media, and technical conferences. Comments on the FHWA synopsis, and a summary of the synopsis will be presented at the meeting. A list of potential projects will be part of the synopsis. Members will be invited to make presentations at the meeting, and discussion following these presentations may result in revisions to the list of potential projects.

Following the discussion of issues, a selection and prioritization process will be undertaken. In this process, Members will rank order the projects. The highest-ranking issues will be marked for further development. The rankings will be subject to discussion and revision to encourage a consensus among Members. In particular, where diversity among Members appears to result in

² The preparations of the initial meeting (i.e., the meeting before adoption of this charter) of the TCD PFS may differ from the process described here.

extreme differences in rankings (e.g., the highest priority issue of one group of participants is the lowest priority issue among another group), consensus-building techniques will be used to ensure that the perceived needs of all groups are accommodated.

Those projects that appear to have the most support will be designated for further evaluation and development. Project groups may be formed, one for each of the designated projects. The

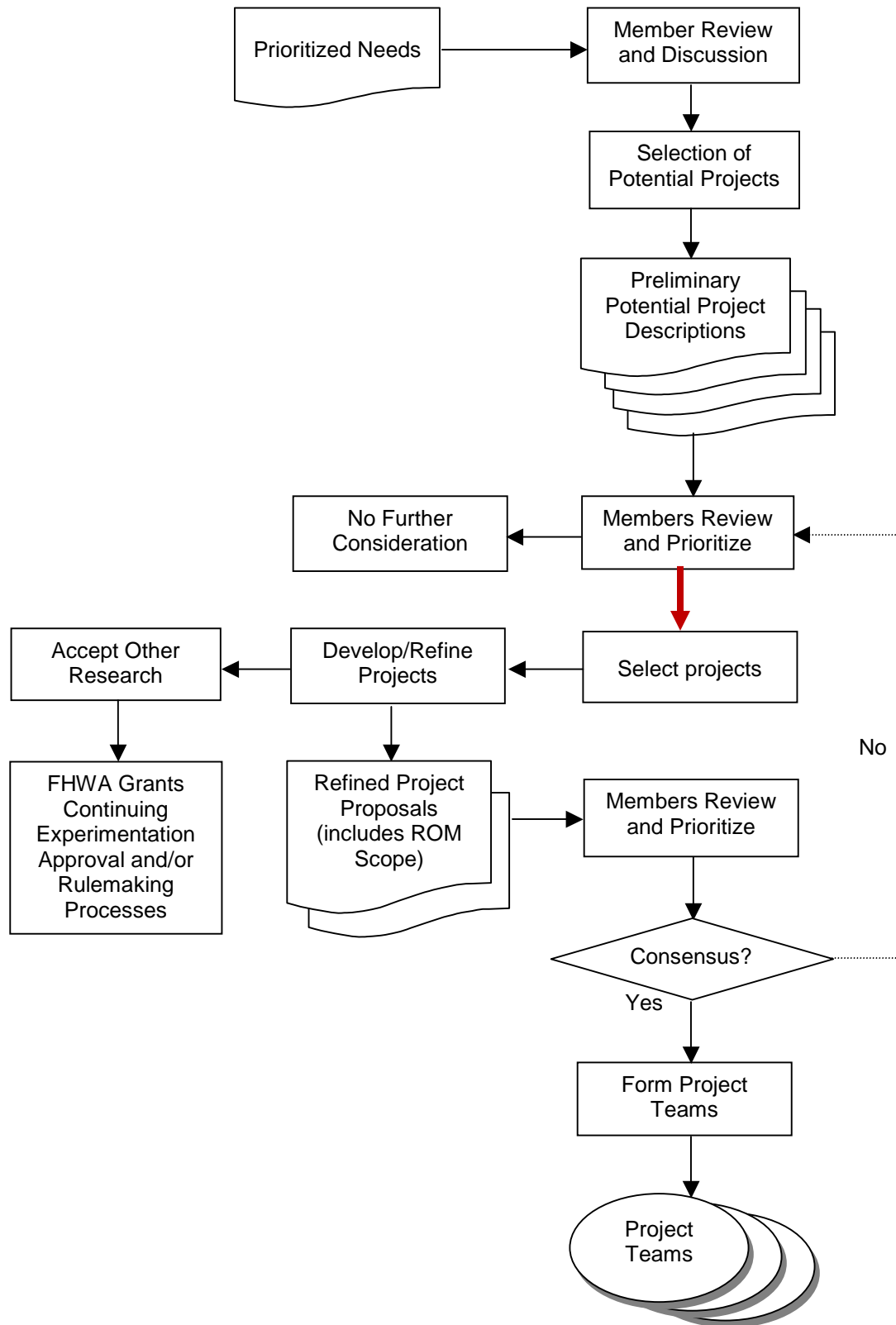


Figure 3. Project prioritization and selection.

project groups will prepare brief project summaries that includes the following information:

- Statement of the problem.
- Proposed evaluation approach.
- A list of desired results from the project.
- Rough order of magnitude cost estimate that includes person hours and other charges.
- Other relevant recommendations, e.g.: preferred agency to manage project; contract mechanism; potential participants on project team; and other interests to provide feedback in the development of detailed project scope.
- Summary of in-kind support and proposed funding support from outside (not Pooled-Fund) sources.
- Approximate schedule for major milestones.

Each summary will be documented on a two-page form to be provided by FHWA. The summaries are intended to clearly state the purpose and products of the proposed projects, and to enable the Members to evaluate of the feasibility of completing the projects within available resources. After reviewing the project summaries, the Members will rank-order the projects in the same manner as in the initial prioritization. When more than one project is being considered for selection, this step can be used to assess which projects will best distribute Member interest across projects. Projected costs are compared to available resources.

The disposition of each project summary will be documented and the initiators of all project ideas submitted will be notified about their final outcomes. In the event that a project requires the conduct of a field test on the public roads, FHWA will need to grant approval for that project.

Assuming that one or more projects can be performed within available resources, proposed projects will be put forward for the consensus support of the Members. Resource constraints or project support considerations may result in a re-prioritization of projects by the members. The final step in project selection is to form Project Teams for the projects selected for execution. These teams will assist in further development of projects, and provide high-level project oversight. The Members may choose to include involvement of practitioners, other peers, or professional organizations with the Project Teams to assist in developing projects.

3.3 *Project Management*

Figure 4 provides an overview of the project management stage. This is an expansion of the third box in Figure 1. Each project will be managed by the FHWA Office of Safety Research and Development with oversight by the Office of Operations. Following the meeting at which the Members select projects, the FHWA Office of Safety Research and Development will

prepare a detailed project plan for each project. The project plan(s) will include, budget, schedule with milestones, and a detailed description of the work to be performed. The project plans will be of sufficient detail to support issuance of a request for proposals or statement of work. The project plan(s) will be distributed to the Members for their review and comments. If the project team has identified other interested parties who are not Members, such as practitioners, or committees of professional organizations, the project plan will be submitted to those parties for their review, comment, or potential involvement..

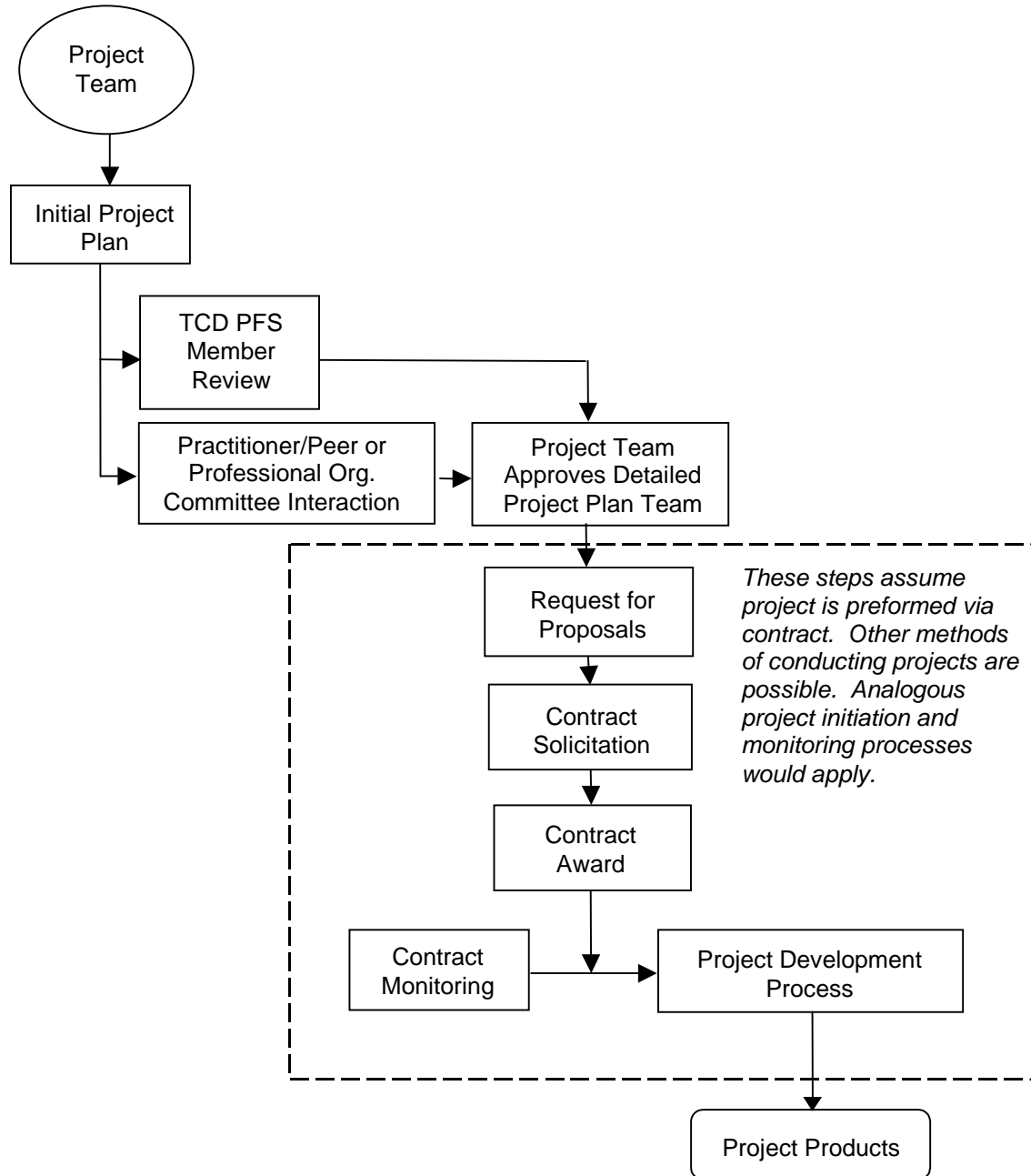


Figure 4. Project management.

The project team will review and comment on the plan, and resolve the outstanding issues before initiating the project. If a project requires a contract, then the project plan will be suitable for incorporation in a request for proposals and/or a statement of work. Contract Solicitations, when necessary, will be issued by the FHWA. The project team may elect members to participate in proposal review and contractor selection. Project committee members will be apprised of project progress relative to the project plan. Should substantial revisions to a project plan or contract be required after a project has commenced, all Members will be so advised. The project committee will participate in review of contract deliverables and provide advice to the Contracting Officer's Technical Representative.

3.4 TCD Evaluation

Figure 5 shows the new process for transfer of results and lessons learned to the greater TCD community. Transfer begins with a presentation of the final project results to the Members. This is an expansion of the fourth box in Figure 1. The Members will decide on the disposition of results and whether to recommend that the novel TCD should be entered into the MUTCD approval process. The Members may elect to initiate new projects based on the results of earlier projects. The implementation of this plan may involve the approval of subsequent projects to facilitate the desired technology transfer activities if the appropriate resources were not included in the original project plan.

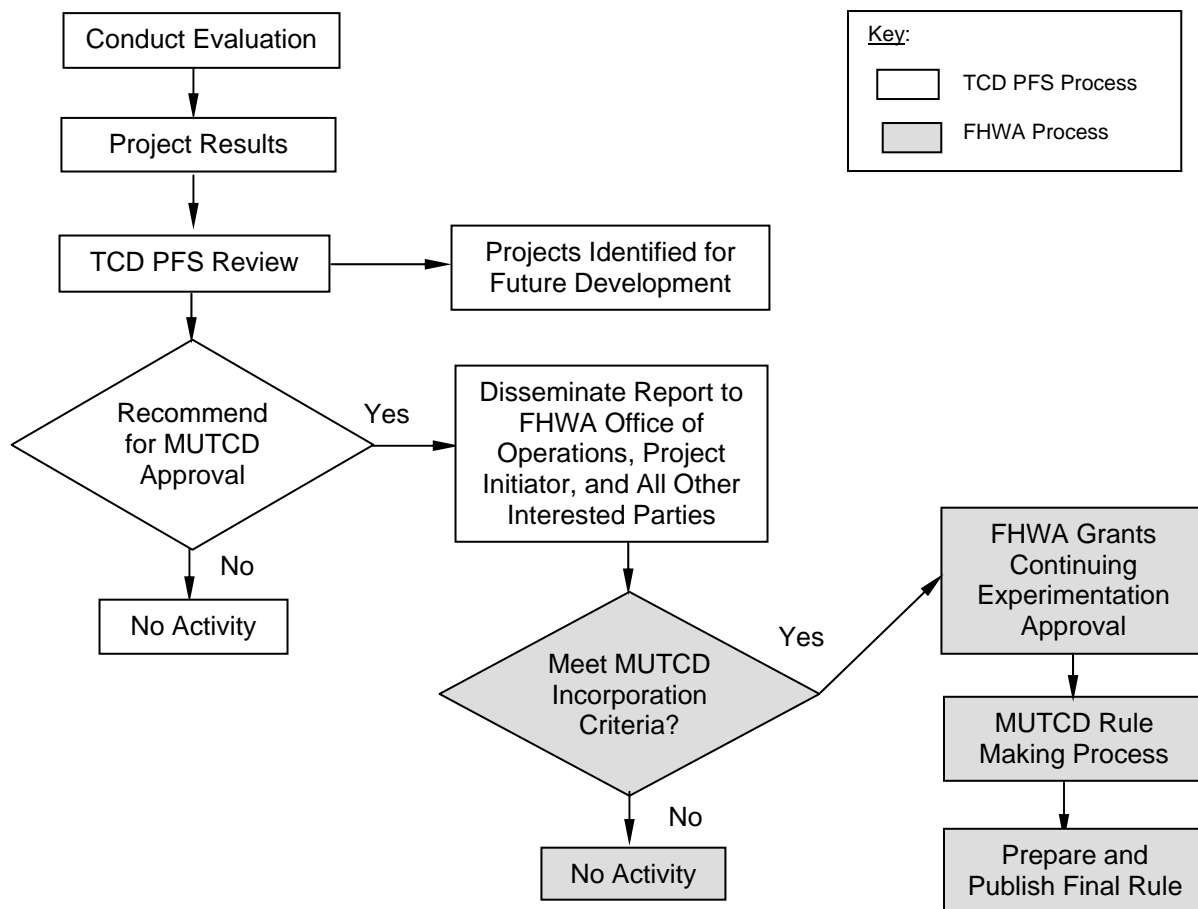


Figure 5. Proposed TCD Evaluation Process.

4 Governance

This Charter provides rules that govern: TCD Pooled-Fund Study membership; project selection; project management, coordination, and solicitation; policies and procedures; fiscal management; and overall TCD Pooled-Fund Study management. Because the charter may require updates as new issues are identified and resolved by the members, provision for revision of the charter is provide in section 4.7 Amendments.

4.1 Membership

Membership shall consist of technical representatives chosen by the respective participant states³, local jurisdictions, other entities, and the FHWA⁴.

Given that the goal of the TCD Pooled-Fund Study "...is to assemble regional, state and local traffic management agencies ..." the processes associated with identifying and developing projects should provide a mechanism to encourage interaction with other entities having novel TCD interests that reach beyond the Members. In facilitating of Pooled-Fund Study activities, FHWA will work with members to explore opportunities to integrate the feedback and insight of these other TCD interests. Participation of other entities will focus on integrating the technical expertise and experience of individuals or those who may be representing organizations that have an interest in TCD's. These individuals might include practitioners that manage TCD's, regardless of whether their agencies are Members of the Pooled-Fund Study. Expertise may be sought from representatives of TCD-related committees of professional organizations. Ongoing outreach and awareness of Pooled-Fund Study activities is expected to occur with the various TCD consortium related committees of the Transportation Research Board, the American Traffic Safety Services Association (ATSSA), AASHTO, the Institute of Transportation Engineers (ITE), the National Association of County Engineers (NACE), and the American Public Works Association (APWA). An example of one group that should be strongly considered for active consultation is the National Committee on Uniform Traffic Control Devices (NCUTCD), due to the very focused and highly applicable experience and expertise of the members of that organization. The Members will define the specifics of participation by these entities.

4.2 Voting Privileges

Voting members are those members who financially contribute to the TCD PFS at least once every three (3) calendar years. If a member has not contributed to the TCD PFS at least once within three (3) consecutive calendar years that member will be considered inactive and will not have voting privileges.

³ Includes the District of Columbia.

⁴ FHWA representation includes the USDOT Operations Office of Transportation Operations (voting member), Office of Safety (non-voting member), Office of Research, Development, and Technology (voting member), and the Federal Lands Highway (voting member). The Office of Research, Development, and Technology is providing the administrative and technical support to facilitate the activities of this pooled fund study. The FHWA Office of Transportation Operations may also designate one or more representatives of local government jurisdictions to be additional voting members of the Consortium if it determines this to be desirable or necessary for diversity in highway responsibilities.

Each Voting Member has equal voting privileges. Votes will be tallied using a “one vote per member” system.

Consensus decision making will be the goal in all TCD PFS activities.

It is recognized that the Members have different backgrounds, needs, and experiences in TCD management and operations. Because of these diverse backgrounds and interests, there will be differences in project prioritization. A consensus building process will recognize these differences and is expected to arrive at a group of projects that, taken together, will reflect the interests of all Members. As the number of participants and resources that are committed to the TCD PFS grow, so too will the number and diversity of projects. Project selection will recognize the diversity of the membership.

In general, formal votes will be avoided. The Chair will work with the Voting Members to develop consensus decisions. Consensus decisions require general agreement among the assembled Voting Members and require the presence of at least three-fourths of the Voting Members. Absent a quorum of three-fourths of the Voting Members, Voting Members not present will be consulted for their agreement. Should a vote be necessary, as determined by the Chair, a two-thirds majority of the assembled Voting Members will decide votes. A quorum of three-fourths of the Voting Members is required for either votes or consensus decisions. When a quorum is not assembled, the non-present Voting Members shall be polled, typically by e-mail, and decisions delayed until all Voting Members have responded, or have had sufficient opportunity to respond.

4.3 Policies and Procedures

The Voting Members will adopt policies and procedures as they deem appropriate, and shall select a Chair and Co-chair. The Chair will have a term of two years for a maximum of two terms.

4.4 Funding

Pooled funding will be derived from contributions received from participating entities. The PFS will not accept funds from individual private industry companies for research evaluations.

4.5 Appointments

The Voting Members are responsible for creating and terminating various project teams or other organizational units as required to meet project requirements.

4.6 Budget and Work Plans

The Voting Members will approve project budgets and work plans.

4.7 Amendments

Amendments to the Charter shall be by four-fifths vote of the voting membership. Any member may propose amendments. A Quorum (three-fourths of members) must be present for a vote of the membership. In the event that a Quorum is not present, then the Members shall be polled⁵.

⁵ E-mail will be used for polling whenever feasible.

5 Program Administration

As part of its contribution to the TCD PFS, the FHWA Office of Safety Research, Development, and Technology will serve as Program Administrator and administer TCD Pooled-Fund Study resources under the direction of the Members.

5.1 General Support

Under direction of the Voting Members, or a project team delegated by the Voting Members, the Program Administrator will draft RFPs and coordinate the proposal review process. The participants, or their delegated project team, shall approve membership on committees that review RFPs or otherwise selecting consultants to perform TCD Pooled-Fund Study projects.

5.2 Contract Administration

The Program Administrator will distribute RFPs, prepare contract documents, and perform other functions related to contract administration and management. Under direction of the participants or their delegated project committee, the Program Administrator will ensure that contracts, schedules, work plans, and project descriptions are followed. The Program Administrator will be responsible for day-to-day quality control and evaluation, recommendations regarding preparation of contract documents, change order requests, and authorization of progress payments. The Program Administrator is responsible for providing contract progress reports to the participants or their delegated project committee. The Program Administrator will distribute project progress reports to the participants at least quarterly, and will respond to participant comments or inquiries regarding progress reports within 30 days of receipt.

5.3 Management Budget

The Program Administrator is responsible for administering a management budget that may include travel and per diem payments for Voting Members or their designated representatives. To maximize budgetary resources, travel arrangements for non-Federal participants may be administered by FHWA under: (1) Federal invitational travel procedures; (2) travel policies of the participating entity to which the participant belongs (provided that those policies comply with Federal Acquisition Regulations for travel); or (3) under other FHWA authorized mechanisms that are subject to Federal Acquisition Regulations for travel. Pooled-Fund resources may be used to support travel and other activities associated with the conduct of the meetings of the TCD Pooled-Fund Study. Only Voting Members will be eligible for travel support.

6 Program Members

For the purposes of charter ratification, Voting Membership shall consist of the FHWA and the states, local governments, and other entities that have committed funding at least once during the previous three (3) calendar years to the TCD Pooled-Fund Study. Additional states may become participants by committing funds at a level deemed appropriate by the participants. Additional entities that seek to contribute to the fund and become members, such as toll authorities or other organizations associated with TCDs, will be considered for membership by the members on a case-by-case basis.