

Regional TIP Policy Framework and VISION 2040 (Puget Sound Regional Council, Washington)

Overview

Project Overview

The Puget Sound Regional Council's (PSRC) 2002 Regional Transportation Improvement Program (TIP) Policy Framework (Policy Framework) establishes regional policy direction and project selection criteria to ensure that transportation projects selected to receive federal funding through PSRC are consistent with the regional long-range growth management plan, VISION 2020, and the regional long-range transportation plan, Destination 2030. According to the July 2007 Draft of the VISION 2040 plan (the update to VISION 2020), VISION 2020 "...combines a public commitment to environmental sustainability and growth management with the economic strength and efficient transportation facilities necessary to support that vision."

The Policy Framework establishes criteria for the competitive selection process in which transportation projects are chosen to be placed on the TIP. The competitive process for selecting TIP projects was developed by PSRC in 1993 and has been refined in each subsequent version (every two years). Through this process, regional and county-wide TIP candidate projects receive scores that are based on how well the project meets individual criteria derived from VISION 2020 and Destination 2030.

The basis of the TIP selection process is VISION 2020, which establishes multi-county planning policies for development patterns, economic development, and transportation investments. The update to VISION 2020 is VISION 2040 (formerly known as VISION 2020+20). The process of updating VISION 2020 involved developing several land use development scenarios or alternatives and evaluating them in an EIS through the State Environmental Policy Act (SEPA) process. At the outset of the VISION 2040 project, the PSRC recognized the value a new sketch-planning tool would add in helping decision-makers consider various growth scenarios and select alternatives for evaluation in an EIS. Paint the Region (PTR) from INDEX is a GIS based modeling tool that evaluates land use scenarios based on numerous indices, allowing the user to "paint" and evaluate a variety of land use and transportation scenarios in a neighborhood or region, and then evaluate how the scenarios meet various performance indicators such as air quality, transportation, impervious surface and stormwater runoff, water and wastewater, solid waste, etc. Paint the Region was used to develop and evaluate four growth management scenarios. Selection of a preferred alternative was a collaborative process involving representatives from four counties and 82 municipalities and the general public. Selection of the preferred alternative is documented in the Draft VISION 2040 document which is currently being circulated for public comment. After public comments are received, PSRC will prepare the final Draft VISION 2040 for review by the PSRC boards. It is anticipated that the final VISION 2040 plan will be adopted by the General Assembly in the Spring of 2008.

Screening Process Overview

Growth management planning is mandated in the State of Washington by the Growth Management Act (GMA). The overarching state mandate has led to the creation of overarching regional policies that allow for and ensure the integration of land use, transportation, economic and environmental planning. Thus, as the regional planning agency as well as the Metropolitan Planning Organization (MPO), PSRC is responsible for long-range comprehensive growth management and long-range transportation planning. As such, PSRC developed a process to

integrate growth management policy decisions with transportation policy decisions through the Policy Framework for the PSRC's project selection process.

Puget Sound Regional Council has a highly integrated planning process that relies on multiple processes and sub-processes. The focus of this study is on two main processes: development of VISION 2040 and PSRC's project selection process for the regional TIP.

Selecting a Preferred Growth Management Strategy

The first process is developing/updating the long-range growth management strategies and policies. In the process of developing/updating the long-range comprehensive plan (VISION 2040); the compliance of alternative development scenarios with the SEPA is evaluated. PSRC wanted to use PTR interactively in stakeholder workshops to create and evaluate alternative scenarios for the Puget Sound Region. They desired a tool that could create regional scenarios in real-time during workshops and evaluate them on a wide range of indicators. The ultimate goal was to select a preferred development scenario for the region through an open and collaborative process. The solution screening process used by PSRC is summarized as follows:

1. Started by talking to stakeholders about what kinds of scenarios they wanted to look at—eight conceptual scenarios were developed from this step.
2. Created PTR land use scenarios internally (population and job allocation):
 - a. Started by creating a layer with the planned land use designation of each 5.5 acre grid cell based on UrbanSim database.
 - b. Created palette of 26 land use categories based on current land use.
 - c. Work with stakeholders over several months to combine scenarios to define four scenarios to be modeled. These were essentially conceptual descriptions (i.e. metro focused, suburban growth, urban fringe growth).
 - d. Divided region into types of regions (see vision newsletter, Regional View, July 2007) (1. metro cities 2. core suburban cities with designated regional growth centre (50-100K); 3. larger suburban cities (but smaller than core); 4. smaller suburban cities; 5. unincorporated urban areas; 6. rural areas; 7. natural resource lands).
 - e. Built out existing areas then determined what extra growth areas were needed (shortfall).
 - f. The shortfall was then allocated according to scenarios (e.g. allocate certain levels of growth to Metropolitan cities). They assigned new land use categories to the 5.5 acre polygons, or "painted the cells," then allocated to what extent they are built out in 2040.
 - g. Ran the PTR model and it provides outputs for 17 indicators including air quality, land use, demography, housing, employment, transportation, , impervious surfaces, and other environmental parameters. They didn't end up using the output for all the indices, as they determined that the data outputs from the model were too simplistic for the information required to comply with SEPA.
3. Created four scenarios on posters (bubble diagrams) and in PowerPoint for public comments. Workshops and region-wide meetings were held with elected officials, environmental groups, policy boards, planning directors, and other stakeholders.
4. PSRC developed one preferred scenario based on comments received. The result was a preferred alternative comprised of elements of the four alternative scenarios.

5. Shared the preferred scenario publicly and requested comments.
6. The final phase is to finalize the preferred scenario per the comments received and seek approval from the PSRC Policy Boards, PSRC Executive Board, and the State General Assembly.

Regional TIP Project Selection Process

The project selection process begins with the adoption of the Policy Framework. The Policy Framework document includes policy direction/guidelines and funding levels/allocations for the selection of projects to receive PSRC funds: the project selection process is summarized as follows:

1. Each county in the region submits a number of projects to the PSRC for evaluation.
2. PSRC staff score the projects based on criteria defined in the Policy Framework. The scoring team meets regularly to discuss projects.
3. After scoring and ranking is complete, PSRC staff present the projects to the Regional Project Evaluation Committee (RPEC) for consideration. RPEC is comprised of representatives (county and municipal leaders) from each county in the region.
4. The RPEC makes recommendations of projects to include in the TIP to the Transportation Policy Board (TPB). The TPB is comprised of voting (typically elected officials) and non-voting members.
5. The TPB accepts or amends the recommendation.
6. PSRC issues the recommended TIP projects for public comment. PSRC compiles comments and responses and reports back to TPB.
7. TPB changes or adopts the recommendation and submits the recommendation to the PSRC Executive Board.
8. The PSRC Executive board gives final approval and the projects are programmed in the TIP.

Key Aspects of the Screening Process

Scope

The State of Washington has a Growth Management Act (GMA) which is overarching legislation that mandates comprehensive growth management planning. VISION 2040 promulgates multi-county planning policies, adopted under the state's GMA. According to the draft of VISION 2040, the policies are designed to help achieve the adopted regional growth strategy "...and address region wide issues – including environmental planning, economic development, and transportation planning – within a collaborative and equitable framework. They provide guidance and direction to regional, county, and local governments on such topics as setting priorities for transportation investment, stimulating economic development, planning for open space, making city and town centers more suitable for transit and walking, and improving transportation safety and mobility. Multi-county policies lay the foundation for securing the necessary funding for

services and facilities, and provide direction for the more efficient use of public and private investments.”

Consistency and integration of planning activities and processes are ensured through the development of functional plans. Destination 2030, for example, is the regions long-range transportation plan and is the functional plan for transportation improvements in the region. It is developed to be consistent with the VISION 2040 development strategy.

Communications

Agency Involvement

Agencies involved generally include county and municipal, or stakeholder, agencies. These agencies are well represented and are involved throughout the decision-making process. The processes are collaborative by nature. The overarching legislation (GMA) and policies require an open and cooperative approach among agencies. The decision making bodies are comprised of agency and public representatives.

Regulatory agencies are generally not directly involved in these early planning processes. They are however provided opportunities to give input at various steps throughout the processes.

No particularly innovative approaches were used to involve agencies. Information is disseminated and collected through newsletters, written and electronic comments. The internet is used to a small degree to post information and collect comments.

Stakeholder agencies are critical to the success of the process and involved at and between all the major decision points. Policy boards are important decision-making bodies that are generally comprised of elected officials from throughout region. The Policy Planning Board and Transportation Policy Board are integral to the planning processes of PSRC. PSRC’s Executive Board makes all final decisions on recommendations from Policy Boards.

Public Involvement

The public is involved throughout the VISION 2040 alternative screening process. PSRC created and managed a variety of activities, workshops and feedback options (e.g. councils, community specific, region wide, written feedback, website notices). For each decision point PSRC had a number of different types of public involvement activities that included:

- large workshops at each major decision point,
- appearing and giving presentations at other established events,
- targeted focus groups (e.g., low income, high needs), and
- open houses in various communities.

A consultant, Parametrix, was used to collect and analyze public comments. Parametrix developed CMARK software to organize comments and responses and record them in the EIS. The consultant’s use of CMARK replaced Excel spreadsheets that had previously been used by PSRC to log comment letters. CMARK is described further in the Technology section of this summary.

PSRC conducted a regional opinion survey using paid postage post cards distributed in newsletters and at public involvement activities and summarized the findings in newsletters.

Staff created very attractive and well written documentation and multimedia presentation of the process and the results. This likely contributed most significantly to their success.

The public is provided an opportunity to review and comment on the recommendation made by the RPEC during the TIP development process. The comment period lasts for 30 days. Comments are compiled and responses are prepared. This information is provided to the Transportation Policy Board to consider prior to making their final decision.

Technology

The TIP Policy Framework does not require or utilize specialized technology and is not discussed further in this section.

The key technology component of selecting a preferred growth scenario for the region was the use of the INDEX PTR tool. The tool is used in the planning stage of solutions screening. Puget Sound Regional Council used PTR internally to paint future land uses in the region using a palette of raster categories including population and employment values. Four alternatives for the 2040 land use development were 'painted'. The tool has the capacity to analyze 26 environmental, land use, demographic, and transportation indicators and is intended to allow analysis and comparison of a range of land use and transportation scenarios, and provide a better understanding of possible long-term benefits and cumulative impacts of the choices different growth patterns represent.

Inputs for PTR include creating a layer with the planned land use designation of each 5.5 acre grid cell based on an UrbanSim GIS database. Note that the Puget Sound Region is approximately 6,300 square miles in area. A palette of 26 land use categories was created based on current land use and population/employment/critical areas data.

Outputs for each alternative solution that PSRC chose to be provided by INDEX included environmental measures such as impervious surface, non-point source pollution, wastewater, and solid waste, and land use characteristics.

Staff Requirements for the adaptation of PTR and use of the tool were as follows:

- 1 intern full time for 1.5 year,
- 0.5 GIS person for 1 year,
- 0.5 Data Analyst for 1 year, and
- 0.5 Project Manager for 2.5 years.

Cost for the development and use of the tool is difficult to calculate since PSRC staff is used, however, it is worth noting that a commitment of staff or consulting resources is needed. Approximately \$250K was required for outside materials (printing, advertisements, etc.). The consultant, Criterion, developer of INDEX, and the staff team worked for six to eight months with PSRC staff inputting UrbanSim data, environmental areas, city boundaries, transit layers, etc. and adapting and calibrating the tool for an approximate cost of \$100K.

The tool was intended for use in an interactive public involvement situation. Originally it was envisioned that PTR would be used to calculate the impacts of the scenarios in terms of transportation demand and environmental outcomes (air quality). It was discovered that the PTR model was too simplistic – simple extrapolation from population growth (i.e. more people = more

water use) – for the level of analysis required to be presented in the Environmental impacts Statement. The decision was made to not use the output of the PTR model for all indices. Instead land use scenarios were fed into PSRC’s in-house transportation and air quality models to evaluate the outcomes. The transportation demand model and the Mobile6 air quality model used output provided by INDEX to assess the effect of the growth scenarios on transportation and air quality. These models are typically used by MPOs around the country.

Early in the community engagement process, PSRC discovered that the process used to allocate growth in communities throughout the region (that is, PSRC manually assigning it to 5.5 acre tiles) resulted in contentious allocations (i.e. hey, you can’t put that type of development there – that’s a park). PSRC staff commented that the level of specificity of the PTR results became red herrings in meetings. For this reason, PSRC staff decided to not use the GIS maps created in PTR, but rather decided to have their graphics staff create cartoon like ‘bubble diagrams’ to represent the four scenarios.

Other tools used in the VISION 2040 development process included UrbanSim and CMARK. UrbanSim is an integrated planning and analysis simulation model that can integrate with transportation demand models. PSRC has their land use data in UrbanSim and populated INDEX – PTR from UrbanSim’s database. UrbanSim is licensed under the GNU General Public License and is available free of cost (UrbanSim website: <http://www.urbansim.org/>). So far, PSRC has only used UrbanSim experimentally and is not currently using UrbanSim for its modeling needs.

CMART (Comment Management and Response Tool) is a proprietary web-based tool developed by Parametrix. that has the ability to manage documents/comments and create a response and review chain, maintain response history, query comment/responses, status "in process" responses, develop summary comments/responses for "like" comments, and produce the typical EIS side-by-side output report. As a consultant to PSRC, Parametrix will use CMART to catalog and respond to comments on the VISION 2040 EIS.

Metrics and Data

Screening criteria are used in the scoring of the potential TIP projects. The criteria are based on the overlying planning policies adopted for the region. The project scoring team objectively evaluates and scores each project for its relative ability, to support designated urban centers, manufacturing/industrial centers, and connect corridors. Specific criteria are used in the comparison, including circulation/continuity, urban environment, mobility/accessibility, benefit to the center, and sustainability. After initial scoring of projects, the scoring team meets to subjectively, compared to other candidate projects, evaluate the projects.

The metrics used for selecting the preferred growth scenario are based on the development goals for the regions which are established through an iterative collaboration process involving the regional stakeholders and the public. The preferred scenario and its alternatives are evaluated in an EIS as mandated by state law.

Lessons Learned

Success Factors

The competitive screening process outlined in the TIP Policy Framework is a success in that it ensures that projects programmed to receive PSRC funds are consistent with regional transportation and land use policies and objectives.

Overall the VISION 2040 project seems to have had a positive outcome. Likely contributing factors to the outcome include:

1. Successful integration of land use and transportation planning.
2. The high level of trust the PSRC enjoyed in the community.
3. Excellent communications materials (i.e., newsletter, DVD).
4. Diverse series of participation opportunities with thorough reporting
5. The integration of land use, transportation and economic planning within one agency, PSRC.
6. Overarching legislation (Growth Management Act) and policies.
7. Well established decision-making entities comprised of representatives from throughout the region.
8. The general commitment to collaboration and accountability.

Key Innovations

While this case study may not present effective use of technology, PSRC was innovative in their foresight and attempt at using innovative technologies in their planning process. As noted under Success Factors above, there are important lessons and key strategies that PSRC employed that contributed to their success.

The use of a competitive process for scoring and ultimately selecting projects to be funded in the TIP that are consistent with the region's planning policies and objectives is seemingly unique to the PSRC. The process also has built-in accountability in that the projects selected for federal funding will be monitored for success through project tracking policies established in the Policy Framework.

Barriers and Solutions

Barrier and solutions are summarized below.

- The scenario planning tool (INDEX – Paint the Region) was not able to perform as hoped (described in the Technology section). Other methods using existing typical models were used to achieve the evaluation objective.
- It was difficult to get people to focus on the big picture, that is the far-reaching timeline (year 2040) and broad geographic applicability (four counties). Responses were either anecdotal, focused at local level or not regional in their allocation of growth. Modification of the public involvement approach could facilitate a better understanding of the big picture.
- An interactive web portal was created for collecting and responding to comments on the EIS, but these efforts were abandoned for the less technical tried and true means.
- People considered interim outputs to be final. Education through public involvement efforts helped overcome this barrier.
- There was a significant learning curve associated with the technology used in the process.
- It was difficult to move beyond historical deficiencies. For example, stakeholders could not comprehend how they would accommodate more growth when resources are already pressured by existing growth.

- In many cases there was an adversarial relationship between PSRC and its constituents. The collaborative process helped to mitigate adversarial situations by fostering working relationships and creating an environment of mutual trust.
- PSRC is responsible for land use (growth management), transportation (MPO), and economic development, thus facilitating an integrated approach. Other regions may have separate agencies responsible for these functions requiring more interagency collaboration.
- A similar process may cost more in other areas due to lack of sufficient data, staff, and resources (e.g., graphics, printing).

Recommendations

Investment (time and money) in scenario development tools or other software tools should be approached carefully and decisions should be well informed about their merits and limitations.

Exact replication of the processes used by PSRC would be extremely difficult if not impossible in another state or region without significant changes to the political and statutory environment. States with existing Growth Management Acts are likely to be more successful than those that don't have them.

Elements of the processes such as linking the project selection process to planning policies and objectives could be implemented/duplicated in other locations to integrate transportation and land use planning and decision making.

The key to success in this study was its open process that relied on established relationship, mutual trust, and a high level of collaborative decision making.

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