

Section 3

Goals and Objectives

This section describes the process for setting overall watershed goals for the TTFIWMP, as well as numerous objectives for helping to reach those goals. The seven prioritized goals, referenced throughout this document, are useful for evaluating the wide range of possible “management options” for implementing the plan.

Developing a focused and prioritized list of goals (general) and objectives (specific, measurable) is critical to a successful planning process. Goals and objectives need to be:

- initially developed by stakeholders and regulatory agencies;
- analyzed and informed by the watershed data collection, analysis, and modeling carried out by the project team;
- finalized by the project team and stakeholders;
- prioritized by the stakeholders.

3.1 Stakeholder Goal Setting Process

Considerable stakeholder input toward developing watershed goals was sought from the beginning of this planning effort. Responses were summarized, and additional stakeholder input organized through further contacts with the stakeholders.

Tookany/Tacony-Frankford Partnership Mission Statement

The mission for the Tookany/Tacony-Frankford planning effort, developed by the stakeholders, is to improve the environmental health and safe enjoyment of the Tookany/Tacony-Frankford Watershed by sharing resources through cooperation of the residents and other stakeholders in the watershed. The goals of the initiative are to protect, enhance, and restore the beneficial uses of the Tookany/Tacony-Frankford waterways and riparian areas. Watershed management seeks to mitigate the adverse physical, biological, and chemical impacts of land uses as surface and groundwater are transported throughout the watershed to the waterways. The TTF Partnership seeks to achieve higher levels of environmental improvement by sharing information and resources.

Goals of Related Studies and Programs

Other studies have already provided a list of goals. Generally, the goals in this section are those identified through the Rivers Conservation Planning process, supplemented by those goals that are required as a result of various environmental regulatory requirements. Additional goals identified in the Tookany/Tacony-Frankford stakeholder meetings were also included once consensus was established.

Existing goals included:

- Aquatic life designated use attainment goal (warm water fishery)
- Public health: Contact recreation (bacteria, noxious plants)
- Aesthetics: Visual and olfactory conditions (noxious plants, bank erosion, litter, odor, etc.)
- Riparian corridors
- Wetlands, woodlands, and meadows
- Wildlife
- Act 167 plan goals
- Act 537 goals
- TMDL-related goals
- NPDES program goals (including stormwater management and CSO control)
- Environmental Futures Program goals
- River Conservation Plan goals

3.2 Consolidated Watershed Planning Goals and Objectives

The large list of goals from the existing stakeholder process needed to be organized. This was accomplished by consolidating goals from various sources into a coherent set for the integrated plan. Other considerations included stakeholders' desire to restore the living resources, and the preference for achieving goals through innovative, land-based, low-impact, and cost-effective management options. Consensus was reached around the following seven goals. Under each goal, more specific objectives are listed.

Goal 1 – Streamflow and Living Resources. Improve stream habitat and integrity of aquatic life.

- Improve quantitative measures of fishery health.
- Improve quantitative measures of benthic macroinvertebrate quality.
- Adapt or develop quantitative measures of attached algae to assess current stream conditions.
- Improve migratory fish passage.
- Increase miles of stable stream banks and stream channels by reducing deposition and scour.

Goal 2 – Instream Flow Conditions. Reduce the impact of urbanized flow on living resources.

- Increase baseflow as a percentage of total flow.
- Increase groundwater recharge.
- Prevent increases in the stormwater flow peaks in future development/redevelopment areas.
- Reduce directly connected impervious cover in developed and new development areas.
- Revise municipal codes to encourage new development and redevelopment using responsible stormwater management techniques.
- Reduce the frequency of occurrence of bankfull flow.

Goal 3 – Water Quality and Pollutant Loads. Improve dry and wet weather stream quality to reduce the effects on public health and aquatic life.

- Develop a phased approach to meeting appropriate water quality criteria in dry weather and wet weather.
- Work with regulatory agencies to re-evaluate designated uses.
- Prevent fish consumption advisories.
- Decrease loads of targeted water quality parameters from stormwater.
- Identify and eliminate SSOs and storm sewer cross-connections.
- Minimize CSO volume and frequency.
- Decrease inputs of floatables, debris, and litter from all sources.
- Increase “Inflow & Infiltration” studies, sewer cleanings, and inspections.
- Eliminate septic tank failures.

Goal 4 – Stream Corridors. Protect and restore stream corridors, buffers, floodplains, and natural habitats including wetlands.

- Maximize open space and habitat by responsibly managing new development and redevelopment of existing, vacant, and abandoned lands.
- Inventory and protect existing wetlands.

- Identify and pursue opportunities for wetland enhancement and wetland creation for stormwater treatment.
- Improve floodplain conditions through restoration or improvement of the connections between streams and their floodplains.
- Protect and restore riparian and upland habitats along stream corridors with native species.

Goal 5 – Flooding. Identify flood prone areas and decrease flooding by similar measures intended to support Goals 1, 2, and 4.

- Reduce the effects and frequency of out-of-bank flooding through management of stormwater.
- Remediate stream-related flooding in known problem areas without increasing the problem in other areas.
- Increase regular storm drain maintenance and cleaning programs throughout the watershed.
- Incorporate sound floodplain management principles in flood planning.
- Minimize the effects of structural floodway and stream encroachments with regard to sediment load and natural streamflow.

Goal 6 – Quality of Life. Enhance community environmental quality of life.

- Increase community green and open space.
- Increase community access and recreational activities in city parks and streams (e.g., by increasing miles of greenways and trails along stream corridors).
- Increase the public sense of security along stream corridors (e.g., by lighting, signage, park maintenance, increased police presence).
- Improve and protect aesthetics along stream corridors (e.g., by litter/graffiti removal, enforcement against illegal practices such as dumping, controls on ATV use).
- Identify and protect historical and cultural resources along stream corridors.

Goal 7 – Stewardship, Communication, and Coordination. Foster community stewardship and improve inter-municipal, inter-county, state-local, and stakeholder cooperation and coordination on a watershed basis.

- Increase public awareness of the value of streams to the community.
- Improve public, business, and institutional awareness of and accountability for activities that affect water quality.
- Encourage and support establishment of watershed organizations, EACs, and the like, to bear the watershed banner.
- Engage local officials and planners.
- Increase volunteer participation in implementing management options.
- Increase school-based education.

3.3 Goals Prioritization

The goals and objectives represent the collective ideas of the stakeholders on what the watershed management plan should achieve. Not all goals, however, are of equal importance. It is helpful to elicit from the stakeholders a collective opinion on the relative importance of each goal for the Tookany/Tacony-Frankford Watershed. Because the achievement of goals is a key aspect of measuring the effectiveness of the management plan, some numerical representation of the importance of each goal is useful.

To develop a set of numerical weights that represent the importance of each goal relative to the other goals, a workshop was held in May 2003, with participation from members of the partnership. The goal of the workshop was to drive towards a consensus on a numerical set of weights that best represent the collective opinion on the importance of each goal. Each participant filled in a worksheet weighting each of the seven goals with the percentage that described the individual contribution of each goal to the overall goal of watershed management. These sheets provided a variety of opinions on how the goals should be weighted, and served as a guide to a discussion on the relative importance of each goal. Through the group discussion, a consensus set of goal weights was developed that best represents the importance of each goal as defined by the stakeholders. Table 3.1 shows the weights assigned to each goal. The weights represent a percentage of the overall importance of each goal relative to all goals.

Table 3.1 Stakeholder Priorities as Weights for Goals

1. Streamflow and Living Resources. Improve stream habitat and integrity of aquatic life.	15
2. Instream Flow Conditions. Reduce the impact of urbanized flow on living resources.	15
3. Water Quality and Pollutant Loads. Improve dry and wet weather stream quality to reduce the effects on public health and aquatic life.	20
4. Stream Corridors. Protect and restore stream corridors, buffers, floodplains, and natural habitats including wetlands.	15
5. Flooding. Identify flood prone areas and decrease flooding by similar measures intended to support Goals 1, 2, and 4.	5
6. Quality of Life. Enhance community environmental quality of life (protect open space, access and recreation, security, aesthetics, historical/cultural resources).	10
7. Stewardship, Communication, and Coordination. Foster community stewardship and improve inter-municipal, inter-county, state-local, and stakeholder cooperation and coordination on a watershed basis.	20

The weights assigned to each goal were important in screening and evaluating the many possible alternative water management approaches to arrive at the recommended options.

The workshop participants also offered their opinions on the relative priority – high, medium, or low – of each of the objectives within the goals. A consensus building process was not attempted for all of the objectives, however, since these play a lesser role in the overall evaluation.