A large-scale construction site for a water treatment facility. In the foreground, there are large concrete structures with corrugated metal covers, surrounded by a bed of large grey rocks. In the background, a red excavator and a white truck with a blue crane arm are visible. The site is situated near a body of water, with a town and mountains in the distance.

Boise River Phosphorus TMDL

Lance Holloway
Idaho Department of Environmental
Quality

LBWC—April 2012

Overview

- DEQ Process as Kaizened
- TMDL Timeline
- Watershed Council (WAG) Participation throughout TMDL Process

KAIZEN

- **Kaizen** (改善), Japanese for "improvement," or "change for the better"—refers to philosophy or practices that focus upon continuous improvement of processes in manufacturing, engineering, game development, and business management.

Goals of TMDL Kaizen

- To fully understand the entire TMDL process
- Identify problems and bottlenecks
- Seek improvements in process



Idaho TMDL Program

- Established in 1995 by legislature to address the 962 water quality limited water bodies in Idaho needing a TMDL
 - Authorized DEQ to develop TMDLs
 - Provided personnel and operating dollars
- DEQ develops TMDLs in concert with local watershed advisory groups and coordinates TMDL priorities through basin advisory groups

Current TMDL Process

- Mapped the entire “current” TMDL process noting all the process steps and people involved from initial assignment to EPA approval
- Estimated approximate time for each process point, delays, do-loops, and decision points
- After much discussion, identified opportunities to reduce time and resources

Future TMDL Process Vision

- Based on fully understanding the current process and recognizing opportunities for improvement, team drafted a “future” desired process



Current versus Future

- Metrics were developed and compared between the current process and future model
 - Total steps decreased by 25%
 - Handoffs were cut by 37%
 - Delays were cut by 52%
 - Average time, start to finish, was cut by 27%

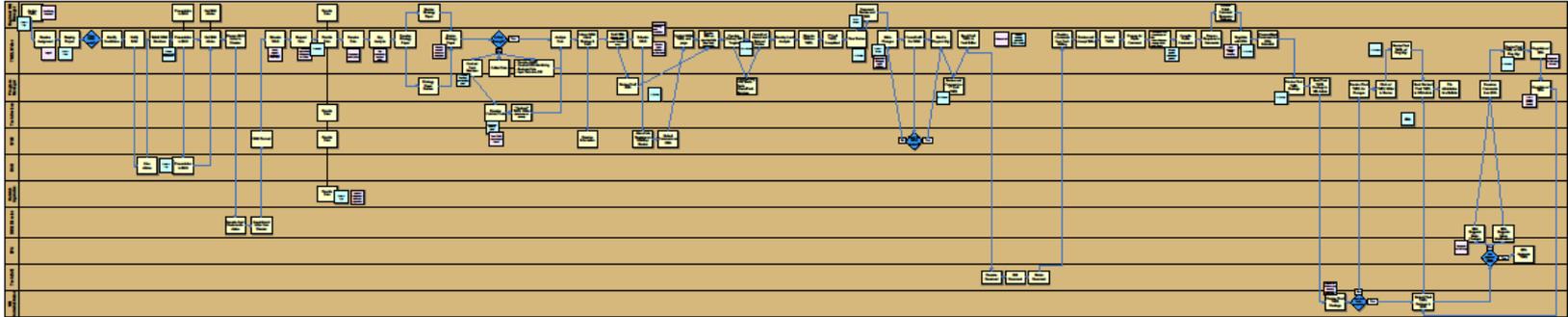
What Changed?

- Possible reduction in number of WAGs
- Standardization of process steps and templates for communication of the process
- Planning and prioritization done on front end of process

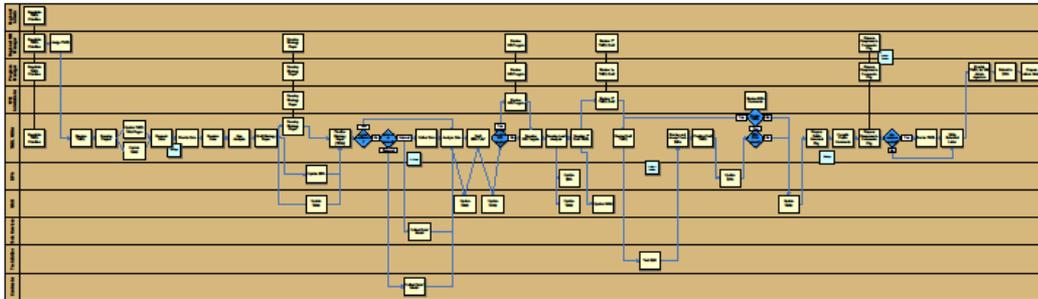
What Changed?

- Repositioned internal reviews so they occur earlier in process
- More involvement by senior management upfront
- Streamlined subbasin assessment
- More coordination with EPA earlier in process, not at end

Current TMDL Process



Future TMDL Process



Total Maximum Daily Load (TMDL)

Kaizen

January 9–12, 2012

State of Idaho

Department of Environmental Quality

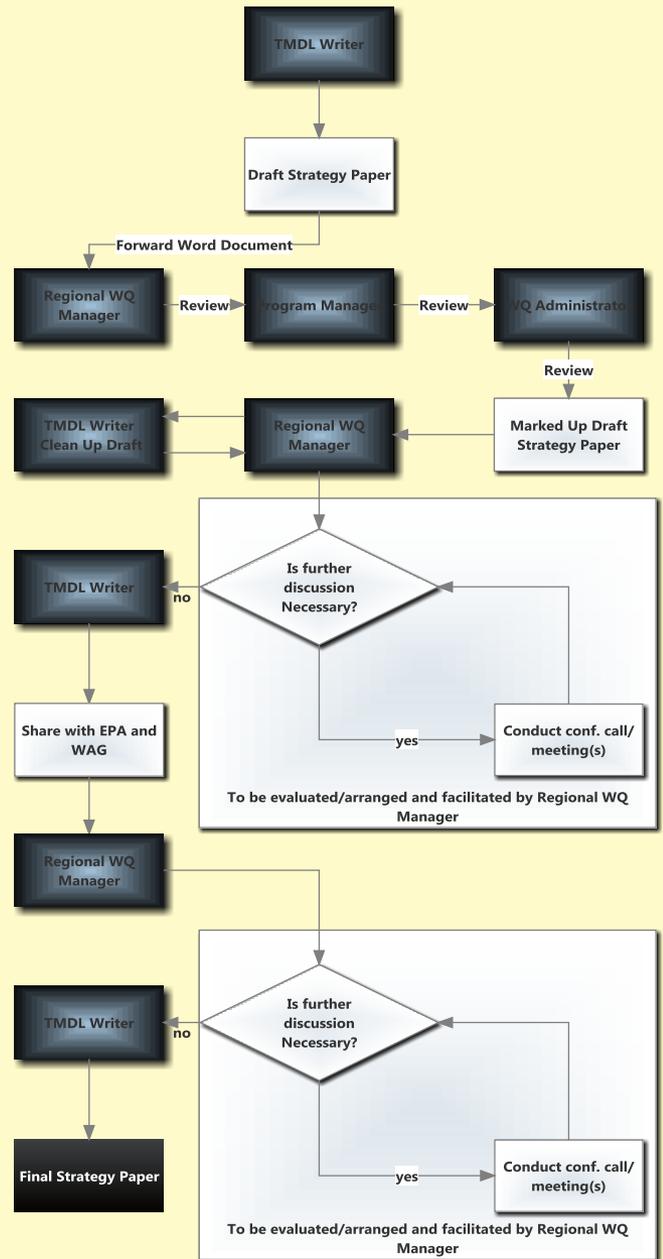
Boise, Idaho



Phosphorus TMDL Timeline

- Strategy Paper
 - Goal: May/June WAG Meeting
- Collect and Analyze Data
 - Review existing WQ data
 - USGS Phosphorus Study April 2012-June 2013
 - Goal: July 2013 to WAG for review
- Establish WQ Target and Load Analysis
 - Goal: September 2013 WAG
- 1st Draft of TMDL
 - Goal: November 2013 WAG
- 30 Day Public Comment
 - Goal: December 2013
- Respond to PC and TMDL Revision
 - Goal: January 2013 WAG
- Submit Final TMDL to EPA
 - Goal: February 2014

Note: This is an estimated timeline and the revised process is flexible and has not been tested.



WAG

39-3612, Duties of each Watershed Advisory Group

- Each watershed advisory group shall generally be responsible for recommending those specific actions needed to control point and nonpoint sources of pollution within the watershed so that, within reasonable periods of time, designated beneficial uses are fully supported and other state water quality plans are achieved. Watershed advisory groups shall, as described in this chapter, consult with the director and participate in the development of each TMDL and any supporting subbasin assessment for water bodies within the watershed, and shall develop and recommend actions needed to effectively control sources of pollution. In carrying out the provisions of this section, the director and the watershed advisory groups shall employ all means of public involvement deemed necessary or required in [chapter 52, title 67](#), Idaho Code, and shall cooperate fully with the public involvement or planning processes of other appropriate public agencies.

WAG

TMDL Development, Review and Involvement

As a summary, HB145:

- clarified who should serve on a WAG,
- required that a WAG be formed for every TMDL and subbasin assessment (SBA) as the SBA process begins,
- required that the DEQ director appoint WAG members, with input from basin advisory groups (BAGs), and
- clearly defined the role of WAGs in the TMDL process.

WAG Participation in TMDL Process

- The WAG will also have the opportunity to actively participate in preparing the SBA/TMDL documents, if desired. The process involves:
 - DEQ developing a strategy paper and **updating the WAG**.
 - DEQ requests WQ data, if necessary, and **shares WQ data with WAG**.
 - DEQ draft the SBA and **seeks WAG input**.
 - DEQ identifies and develops WQ targets; develops TMDL load analysis; and **updates WAG**.
 - Draft TMDL and provide to **WAG for review**.
 - **Consider WAG comments** and incorporate or respond to comments.
 - Tech Editing
 - EPA review
 - **WAG Review** - If, after the previous 3 steps, a WAG is not in agreement with an SBA/TMDL, the WAG's position and the basis for it will be documented in the public notice of public availability of the SBA/TMDL for review.
 - Post for **Public Comment** opportunity
 - If the WAG still disagrees with the SBA/TMDL after public comments have been considered and incorporated, **DEQ must incorporate the WAG's dissenting opinion** in the TMDL that is submitted to EPA.
 - Submission to the U.S. Environmental Protection Agency (EPA) for approval.
 - DEQ and the **WAG develop an implementation plan** to reach the goals of the TMDL.

Post TMDL WAG Role

- Five-Year Review
 - DEQ and WAG re-evaluate SBA/TMDL and Implementation Plan