

Oro Valley Water Utility Water Plan Review Process Guide

This process guide contains the water plan approval process elements in schematic form, a narrative of each element within that schematic and the internet links to all the documents the Oro Valley Water Utility uses in making plan review determinations (including plan formatting). The Oro Valley Water Utility (OVWU), Golder Ranch Fire District (GRFD) and then the Pima County Department of Environmental Quality (PCDEQ) all review and approve a water plan prior to issuance of the “Approval to Construct” by PCDEQ (Or an Exemption Letter).

Any extension to the public water system requires a separate water improvement plan. Below is a list of project types that require separate water improvement plans that will have to be submitted to PCDEQ.

Subdivisions

Commercial Developments

Fire line extensions over 10 feet in length (These run from the public main to the backflow prevention device)

Single lot developments which require extensions of existing mains.

Below is a list of project types that require some form a water plan but are not reviewed by PCDEQ. Often an 8.5 x 11 sheet showing the proposed work can be reviewed. The OVWU still needs to review these plans.

Single potable services

Fire line extensions of 10 feet or less

Oro Valley Water Utility New Development Process

Introduction:

The information contained within this document will guide you toward;

1. Approval of your water improvement plan by the Oro Valley Water Utility (OVWU)
2. Placing the water main extension for your development into service so that potable water can be delivered for domestic use.

Every effort will be made by OVWU staff to ensure that the process of approval of a water plan is timely and efficient. Staff is available to answer any questions you may have throughout the process. Please be aware that before a project is allowed to move to construction the Pima County Department of Environmental Quality (PCDEQ) must also approve the water plan.

Process Steps:

Preconstruction

Approval of Final Site Plan
Submit Water Master Plan
If Master Plan Approved
Submit Water Design Plan
Approval by OVWU
Submit to PCDEQ
Approval by PCDEQ
Issuance of "Authorization to Construct" Certificate

Construction begins

Grading pre-construction meeting with the Department of Infrastructure Services (DIS)
Issuance of Grading permit by DIS
Developer returns completed Line Extension Agreement to the OVWU
Water pre-construction meeting held by the OVWU
Inspection fees for water plan paid to the OVWU
Construction on water starts
Testing
Clean Bacti test
Tie-ins
Submittal packet sent to PCDEQ by OVWU for the "Approval of Construction"
AOC is issued
Meters can be purchased

Preconstruction

Approval of your Final Site Plan

The OVWU reviews the Conceptual Site Plan and the Final Site Plan for your development. Our primary concerns are that water infrastructure extensions and corridors for same are represented accurately and that the need for offsite water mains, if necessary, are identified. Pipe sizing and exact alignments are not reviewed critically during these submittals. If the development must be platted a water improvement plan can be submitted with all the other Improvement plans when the Town is ready to accept them.

Submit Water Master Plan

When the Town is ready to accept civil improvement plans you can submit the water infrastructure Master Plan for your development. The Master Plan does not need to have exact locations of mains within roadway prisms; right of ways or easements and it does not need to show all of the appurtenances of a fully designed water plan. The purpose of the Master Plan submittal is to hydraulically model the proposed infrastructure to verify it meets current standards and regulations for flow, pressure and velocity. (see page for a listing of criteria materials). Main and service sizes are required as are fire flow determined by GRFD and any commercial domestic demands. Often Developers and Engineers choose to combine the Master Plan and the Design Plan for a single submittal and this is acceptable. If this is the case the Design Plan cannot be approved until the Development Plan or Final Plat for your development is approved by the Town. The Engineer of record will be contacted by phone when the reviewed plans can be picked up at the OVWU office so that deficiencies can be addressed. The plans will be marked with redlines to show corrections that are required.

Review fees must be paid before release of the redlined plans. If the Master plan is approved with the first submittal, the review fee for the Master plan must be included with the submittal of the Design Plans. The link to the OVWU fee schedule for plan reviews is included as the last sheet of this process guide.

Water Master Plan Approved/Submit Water Design Plan

Once the Water Master Plan is approved you can submit the Water Design Plan. You will be required to submit 2 sets of the Design Plan and one copy of the Plat or Development plan and one copy of the civil improvement plans. This plan must show all fittings and appurtenances with main sizes shown as approved from the Master Plan. The OVWU will review for technical compliance with all codes, standards and statutes (see the last page of this process guide for the hyperlinks to the documents the OVWU uses to

review design criteria). The Engineer of record will be contacted when the reviewed plans can be picked up at the OVWU office so that deficiencies can be addressed. The plans will be marked with redlines to show corrections that are required.

Review fees must be paid before release of the redlined plans. If the Design Plan is approved with the first submittal, include the Design Plan review fees with the submittal of the Water Plan Mylars for signature. The link to the OVWU fee schedule for plan reviews is included as a hyperlink on the last sheet of this process guide.

When the Design Plan is approved the Engineer of record will be contacted by phone and told that the Mylars can be circulated to Golder Ranch Fire for their signature. The Engineer must then bring the Mylars to the OVWU for our signature of approval. A "Statement of Water Adequacy" letter will be written for the approved water plan and the Engineer will be contacted when the mylars and Adequacy letter can be picked up at the OVWU office.

Submit the Water Plan to Pima County Department of Environmental Quality (PCDEQ)

It is the responsibility of the Engineer of Record to submit the approved Water Plan to PCDEQ for the Certificate of the Authorization to Construct for the development. No work can begin on the water infrastructure until the Certificate is issued. The OVWU will write an Adequacy letter for the Engineer to include in the submittal the PCDEQ. This letter lets PCDEQ know that the OVWU has modeled the proposed system improvements and it meets statutory requirements.

The OVWU requires three sets of water plans that are stamped as approved by PCDEQ for our use. PCDEQ may require more plans for their use. Once PCDEQ has reviewed and approved the water plan they will stamp the three sets for OVWU use and sign the stamp. It is the responsibility of the Engineer of record or the developer to get these three sets to the OVWU along with a copy of the Approval to Construct.

Smaller main extensions that do not serve a platted area and have no possibility of future connection can be submitted to PCDEQ for an Exemption. In this case the Engineer of Record submits the plan to PCDEQ as above, along with a letter stating the desire for an Exemption and that speaks to construction costs. The upper limit of the Exemption Letter construction costs is currently \$50,000.00. Please verify all the conditions necessary for the Exemption with PCDEQ. In any case the OVWU will still inspect and supervise the construction of the water main extensions under the Exemption and all statutory requirements are still necessary to be met. The benefit of the Exemption process is that domestic meters can be supplied sooner than with an Approval to Construct process. This will be explained further in the Approval of Construction process later in this document

Construction begins

Grading preconstruction meeting/Grading Permit issued

The work on your water main infrastructure is done under the Town of Oro Valley's grading permit for your project and/or under a Right of Way permit for offsite

improvements to serve your development. The Town's Department of Infrastructure Services (DIS) will contact the OVWU when you have requested a grading permit pre-construction (pre-con) meeting (the meeting at which your grading permit is issued). In some cases the OVWU will allow this grading pre-con to take place even if the water plans are not fully approved by the OVWU and PCDEQ. This is usually done when there is significant site work that needs to be done prior to water main work and the timing allows for the issuance of the Approval to Construct such that you will be ready to work on the water mains at the same time. On smaller projects it may be most efficient to wait until the Approval to Construct or Exemption Letter is issued. This decision is made through consultation between DIS and the OVWU. One major factor in this decision making process is that the site does not sit fallow for an extended period of time.

Water preconstruction meeting

Prior to the work on the water infrastructure being allowed to commence the developer must request an OVWU specific pre-con be scheduled. The OVWU needs a minimum of 48 hour notice prior to a requested pre-con meeting date so that the Inspector and OVWU can schedule the meeting with the contractor and crew that will perform the water main installation work. The contractor must have one of the following licenses to work on OVWU mains;

“A”

“A-12”

“A-16”

“KA”

“K-80”

At the Water pre-con the Inspection fees must be paid and all material submittals are required along with sieve analysis of bedding/shading material and cut sheets. The Inspection fee schedule can be found by following the hyperlink listed on the last page of this process guide.

The OVWU also requires that the Line Extension Agreement (LEA) for the project be executed by the Owner/Developer and the original returned to us. Any explanation of the LEA elements is included as page 8 of this process guide. The LEA for the project will be supplied to you after the grading per-con and will be partially filled in by the OVWU. We will also include an instruction sheet for filling in your portion of the LEA. Please follow the instructions carefully and if you have any questions call the OVWU at 229-5017 for help filling in your portion of the LEA. The LEA is a legal document and will be reviewed by the Town's Legal Department as to form and accuracy. The Owner must complete their portion of the LEA and return the signed original to the OVWU prior to the work on the project beginning.

The OVWU will inspect the installation of the water mains for the project. The OVWU Inspector may require changes to the water plan to accommodate field conditions or deficiencies found on the water plans. The OVWU has final say on installation of the water mains for your development. You may want your Engineer to observe the installation as well and the OVWU has no objections to this, but the Engineer can not direct the contractor to make changes without consultation with the OVWU prior to changes being approved. Again the OVWU has final say on any changes.

After the installation of the water mains is completed it is tested. It must pass a 2 hour 200 psi pressure test, be chlorinated for 24 hours (with specific ranges of chlorinated water) and finally bacteriological (bacti) samples are taken and submitted to a lab. These bacti results take 24 hours and must come back 100% negative for bacteria/microbes. Flushing of the tested mains is then scheduled through the inspector and then the mains may be tied into the existing OVWU system. At this time the mains are only approved for use for fire protection. The OVWU will contact GRFD and tell them the hydrants on your site are available to be flow tested. A satisfactory flow test by GRFD generally allows combustibles to be placed on your site and this is scheduled by GRFD and is out of the OVWU control. Potable domestic water can only be delivered after PCDEQ issues a "certificate of Approval of Construction" (Approval of Construction) and no meters shall be installed until this is issued.

The packet necessary for PCDEQ to issue the Approval of Construction is prepared by the OVWU. It includes As-Builts and test results. The OVWU submitting this packet assures that the timing for the issuance of the Approval of Construction is as efficient as possible. Once the packet is submitted to PCDEQ the timing of the issuance of the Approval of Construction is in PCDEQ's control. When the Approval of Construction is issued water meters can be sold and installed and potable domestic water can be delivered to you development. Please note that meter boxes for meter installs must be set to OVWU standards or the meter will not be installed. Links to these standards are included in the last page of the process guide.

The work on the water main installations is only completed after all final valve boxes, meter boxes and appurtenances are adjusted to final grades or pavement. The contractor needs to contact the OVWU when this work has been completed to schedule a final inspection of the work. The inspector will generate a punch list of deficiencies if there are any and this must be completed for the work to be deemed completed.

Each private development project has a two year warranty. The start date for this two year warranty is set within the LEA for the development. The date will be added to the LEA when all punch list items are completed satisfactorily to OVWU Standards.

Town of Oro Valley (TOV) Line Extension Agreements (LEAs) Elements

A Standard LEA contract provides the following:

- The terms and conditions agreed between the TOV and the person or entity (party) who builds a water main extension.
- Transfers ownership of the water main that is connected to the existing TOV water utility system upon acceptance by the TOV.
- Assigns a two year warranty on the water main extension that was built and defines the responsible party for any warranty work required.
- Defines the responsibilities of both parties to the agreement throughout the water main construction, inspection and acceptance processes.

An Oversized LEA contract provides the following:

- All elements of a Standard LEA.
- Defines the agreement between the TOV and the responsible party for the water main construction as it relates to the incremental size increase requested by and to be paid for by the Town under Town Water Utility standards..

A Protected Main LEA contract provides the following:

- All the elements of a Standard LEA.
- Defines water infrastructures within a project's water plan that are to be protected. The up front cost of a protected main is carried by the applicant and is reimbursed over time as other developments connect to the protected infrastructure.
- Defines the reimbursement schedule for the protected water infrastructure.

OV Water Utility Design Guidelines, Manuals and Links to Forms



Guidelines

- **Bulletin 10** - <http://www.azdeq.gov/function/compliance/download/eb10.pdf>
- **ARS Title 18** - http://www.azsos.gov/public_services/Title_18/18-04.htm
- **OVWU Rates and Fees**
http://www.orovalleyaz.gov/Town_Government/WaterUtility/Water_UTILITY_Rates_and_Fees.htm
- **OV Town Code Chapter 15** - <http://www.codepublishing.com/az/orovalley/>

Manuals

- **Tucson Water Design Manual** - <http://cms3.tucsonaz.gov/water/dsm>
- **Tucson Water Standard Specifications Manual** - <http://cms3.tucsonaz.gov/water/spec-book>
- **OVWU Standard Specifications Manual**
http://www.orovalleyaz.gov/Town_Government/WaterUtility/potable_reclaim.htm

Forms

- **Tucson Water cost estimate and material take off** <http://cms3.tucsonaz.gov/files/water/docs/costestimate.pdf>
- **OVWU - Water Plan Checklist - First Design Review Form**
[OVWU - Water Plan Checklist First Design Review Form \(pdf\)](#)
- **OVWU - New Development Master Plan Checklist Form**
[OV Water New Development Master Plan Checklist Form \(pdf\)](#)
- **OVWU Water Design Completeness Review Checklist Form**
[OV Water Design Plan Completeness Review Checklist Form \(pdf\)](#)
- **OVWU Water Completeness Review Water Master Plan Hydraulic Review Only Checklist**
[OV Water Completeness Review Water Master Plan Hydraulic Review Only Checklist Form \(pdf\)](#)