# **Aqueduct Adoption Segments – Maintenance Details**

#### Aqueduct Adoption Segments:

**Moonscape & Bivalve (1.4 miles +):** This segment is two loops that connect the north (main) trailhead to the "Moonscape" terrain. The lower 1/4 mile is relatively flat terrain and drainage structures are subtle. It is important to try to keep these sections drained so water doesn't pond up and people widen the trail by skirting around the wet spots. The trail steepens to about 15% grade as it climbs up to the first intersection (with Evenflow). This section drains pretty well but needs to be checked after heavy rain storms for excessive "rill" erosion. At the first intersection go straight to the namesake "Moonscape" section which is a fun, swoopy downhill that drains pretty well but also needs to be checked after heavy rain storms for excessive "rill" erosion. At the next intersection with the end of the Evenflow trail, turn right onto the Bivalve section. This segment has some flat areas that don't drain well and sometimes get long-staying hoof prints from horses. If you see these, try to smooth them out as soon as possible before they harden into mini craters. Return back to the west to the Bivalve/Moonscape intersection and work west along the top till the trail turns sharply to the right drops at a 10-15% grade. At the bottom of the hill the trail turn

s sharply left and again has numerous flat sections for about 1/4 mile with subtle drainage structures that need attention typically after any rains.

Evenflow - Rim, Retention, Flow Sections (approx. 2 miles): This is most easily accessed from the south parking lot. Head up Discharge which has soils that get very sticky when wet so be sure to give a day or two after rains to access the trail. Go straight at the four-way intersection onto Evenflow. This direction is the reverse of the bicycle direction. This first "Flow" section has 8-12% grade where it climbs to the top of the hill and has a few drainage crossings that need to be kept drained. Maintaining drainage before and after large banked turns will help keep the "flowy" experience. The next <sup>3</sup>/<sub>4</sub> mile of the Retention segment is rolling through the juniper and drains pretty well, but also has some larger rolling dips and structures that need the outflow area kept clean. As the trail opens into the sagebrush/juniper "flats", the high clay soils can easily erode with summer thundershowers. This area also has two very large gullies where maintaining drainage at the top and mid-slope is important. This area has sunflowers invading that look pretty early on, but they can be very obnoxious as they mature and grow out over the trail. To help prevent the likely cuts on arms and legs, it is best to pull or cut these down before they get above 2 feet tall. On the north side of the northern-most of these two gullies there is a patch of Russian thistle (tumbleweed) that is invading. Early pulling of these before they get above 1-2 feet tall, with bagging for removal, may help prevent expansion of the population. The next <sup>1</sup>/<sub>2</sub> mile steadily climbs with lots of twists and banked turns that need to be kept drained and smooth. At the next intersection with Ridges and Crosscut turn left. This 1/2 mile "Rim" segment, down to the intersection is fairly well drained but does have some sections that are flatter or have the red clay surface that can get pretty tacky and should have the structures maintained well.

Evenflow - Swale + Discharge (approx. 1 mile): From the south parking lot maintain the

Discharge section up to the first intersection. This segment has shale soils that get very sticky when wet so be sure to keep the drainage structures well maintained. You should probably give a day or two after rains to access the trail. Turn left onto the Swale segment of Evenflow. This "Swale" segment does have some low-lying spots that don't naturally drain well that need attention after precipitation events. About ½ mile in the vegetation opens into a sagebrush flat. This area needs good drainage work, but also has sunflowers invading. They can be very obnoxious as they mature and grow out over the trail. To help prevent the likely cuts on arms and legs, it is best to pull or cut these down before they get above 2 feet tall. This area also has two medium-sized gullies where maintaining drainage at the top and mid-slope is important. The next ¼ mile gets back into the trees and although the first part is relatively flat, it drains fairly well.

#### Ridges – Regulator (approx. 1 ¼ mile):

This 1 ¼ mile segment connects with Evenflow on the west and Mountain View on the east. It is best accessed from the north trailhead via the Moonscape and Evenflow trails, and starts about 1 mile in from the parking lot. It starts at the intersection with Evenflow and Crosscut. After an initial drop it steadily climbs about 200 feet from west to east, averaging typically between 2% & 5% grade. The first ½ mile section winds through the trees with one short steep drop and one short steep climb at about 15%. This section needs attention to keep the structures clean. The next ¾ mile, that some call "Lunar Too", is like "Moonscape" and rolls up across shallow shale soils where water runs off quickly. This section is pretty easily maintained but special attention is needed to smooth out a few "rills", or mini gullies, that can develop after intense thunderstorms.

#### Ridges – Tightline (approx. 1 mile):

This middle segment of the Ridges trail starts at the intersection with the Mountain View trail on the north and the intersection with the Rip Rap and Overlook trails on top of a ridge on the south. The north end starting point is about 2 miles in from the north trailhead parking lot and best accessed on bike. ((If walking in, access from the south parking area is a little over 1 mile. Hike in on Discharge and Rip Rap trails to the top of the ridge to the intersection of the Overlook hiking trail)). The terrain, soils, vegetation and thus maintenance needs are quite variable. The first ¼ mile section goes downhill across an open sagebrush flat but flows in and out of small and medium-sized gullies that have high clay content and can be both sticky when wet and need special attention to assure drainage structures are well maintained to get the water off the trail quickly and the tread kept smooth. After entering the trees the trail climbs steadily past the Pump Station trail to the top of the ridge. The trail surface is better drained but does have a few low spots that regularly need attention. Just south of where the Pump Station trail connects back into Ridges there is a short Bypass trail that is a shortcut to the Crosscut trail. Little is needed for maintenance, but should be walked each time to make sure. The area before and after the Pump Station intersections has some steep but short grades (12%). This section is well built but maintaining the cross drains is important. The last tenth of a mile crosses some steep sloped shale hills with little to no vegetation to hold water. Severe sheet and rill erosion can occur here with small gullies cutting into the trail. Special attention should be given to this area after intense summer thunderstorms.

#### Ridges – Separation (approx. 1 mile):

Access to this segment of the Ridges trail is best from the south parking area. Because of the steep grades and subsequent fast speeds of the bikes, you are encouraged to work uphill for this trail. Hike in on Discharge and Rip Rap trail and turn right at the first intersection. Keep to your right at the Rip Rap trail and work all the way to the top of the second ridge (to the intersection of the Overlook hiking trail). This trail is the steepest in the system with numerous short sections being 14-16% grade. Because of the steep pitches it is important to keep the drainage structures built up and cleaned to keep water from running down the trail. It is recommended that you check the trail conditions as soon after intense thunderstorms, allowing the lower clayey sections to dry out first. There are three drainages in the first 1/4 mile that don't drain naturally very well. Extra care is needed to try to keep people from making deep ruts and widening the trail at these crossings.

#### Mountain View (approx. 1.8 miles):

This section is just under 2 miles long and has some of the most diverse landscape, and some of the best views) of all of the trails at Aqueduct. The north end starting point is about 2 miles in from the north trailhead parking lot and best accessed on bike. It is best accessed from the

north trailhead via the Moonscape, Evenflow and Regulator portion of the Ridges trails. The first 1/4 mile climb has some steep 15% pitches and water drains pretty well. A wide drainage crossing has sunflowers invading that can be very obnoxious as they mature and grow out over the trail. To help prevent the likely cuts on arms and legs, it is best to pull or cut these down before they get above 2 feet tall. The next 1/4 mile rolls through sparser trees and then crosses the buried "Aqueduct" pipeline. At this point it continues rolling through an open greasewood flat that has lots of cactus. You will want to keep at least a 3 foot wide area trail that opens up into sagebrush flats with only scattered juniper trees, numerous spots have sunflowers invading that need to be cut down early. The next 1/2 mile rolls through trees and re-crosses the Aqueduct that doesn't require a lot of work to keep open, but there are a few tight banked turns as the trail flows into and out of a large drainage. Substantial rill erosion has, and can, occur in this section so try to keep a minimum of 18 inches of tread through this area.

## Pump Station (approx. 1 mile):

The easiest access is by walking about 1 ½ miles from the south parking area. Hike in on Discharge and Rip Rap trails about 1 mile to the top of the ridge at the intersection of the Overlook hiking trail. Take the Ridges trail towards the north-northeast which is the middle trail at the top of this ridge for about ½ mile and work either direction. This 1 mile loop trail rolls along the east side of a ridge and goes in and out of numerous drainages. Natural draining of rain is pretty good but snow melt can cause the trail to be a "mucky" mess because of the depositional shale soils. Trees are fairly dense here and some trimming of limbs will occasionally be necessary.

## Rip Rap (approx. 1 mile):

This trail is easily accessed from the south parking area. Hike in on Discharge, turn right at the first intersection and turn left in about 100 feet. This trail has a steady climb up for almost the entire length. There are a few very steep pitches (25-30%) and just a couple short downhill sections. The biggest problem areas for maintaining this trail is where it is constructed across

steep bare shale hills. The rainwater sheets off these hills and causes rill erosion and rills or small gullies can be cut up into the trail tread. If this occurs, substantial work may be necessary to fill in the rills and smooth the trail surface. Pretty good natural drainage has been built into most of this section of the trail, but it is necessary to keep the structures cleaned out.

## Overlook (Hiking only, (approx. 0.1 mile)

This short trail is accessed from the south parking area. Hike in on Discharge turn right at the first intersection and turn left in about 100 feet and hike up the Rip Rap trail. At the top of the ridge veer to the left and the intersection is just a few feet ahead on your left. This trail has a pretty narrow tread (1 to 1 ½ feet) and is pretty easily maintained. The most critical segment is about 150 feet in where it climbs for about 150 feet at 7 to 8% grade. Maintain the drainages here to keep the water off the trail as soon as possible. The last 250 feet rolls along the top of the ridge to the "Overlook" at the south end. Keep a watch along this whole trail, and especially at the end, for any evidence of people "baling off" the side to intersect lower trails. If you see any evidence of horseback or bicycle use along this trail try to buff out the tracks and report either of these issues to Don as soon as you can.

## Crosscut (approx. 1 mile):

This trail is best accessed from the north trailhead via the Moonscape and Evenflow trails. About 1 mile in from the parking lot, it starts at the intersection with Evenflow and Ridges trails. The first ½ mile of the trail rolls through sparse juniper and across more open shale flats. Drainage is pretty good here but structures still need to be kept clean. The next ½ mile climbs steadily and rolls in and out of drainages that are not too difficult to keep maintained, but it is important however to keep the structures cleaned out and the banked turns smooth. At about 1 mile in, the trail banks steeply to the right. There is a short Bypass trail to the left (north) that is a shortcut to the Ridges trail. Take a quick walk down to the Ridges and do any maintenance if needed on this Bypass. Going back to the Crosscut trail, the last ¼ mile climbs steeply to the top of the ridge to the intersection with the Overlook hiking trail. This section is pretty stable if drainage is maintained to keep the water from running down the tread.

## The F.A.T. (Full Aqueduct Tour) trail - a 12.6 mile loop of flowy Aqueduct goodness:

To ride the full trail system as one 12.6 mile loop, each individual loop is ridden in a clockwise direction.

Begin at the main (north) trailhead and head left at the gate onto Moonscape. Continue straight through the first intersection on Moonscape and go right when it intersects with the northwest end of the Evenflow trail. Turn right for about two tenths of a mile and turn right on Bivalve. Continue straight at the next intersection onto Evenflow. At the next intersection go left onto Ridges. Continue on Ridges until you bear left at the intersection with Mountain View. Climb up Mountain View and take time to enjoy the views. After about a 0.8 mile bear left back onto Ridges for a nice roller coaster segment. Climb to Pump Station and bear left. This rolls along back to Ridges and bears left to climb to the Summit. This area has the intersection with Riprap, Crosscut and the Overlook trails. Bear left to descend the Ridges downhill to the intersection with a short hike out the hikers-only Overlook trail to a nice viewpoint. Back on the bike, stay to the left and

descend the fun Crosscut downhill to the intersection with Evenflow. Go left onto Evenflow and complete the whole Evenflow loop by turning right at the intersection with Discharge. At the end of Evenflow, veer left onto Moonscape and then also turn left at the intersection with Bivalve to return to the north parking lot.