

MEMORANDUM

Date: September 16, 2011

To: Water Right File 22-13418

From: Craig L. Saxton

Amendment Needed

POU and POD developed in SESW S.22 rather than NESW S.22 as permitted. Amendment needed.

Evaporative Loss Calculation

The field examiner recommended a maximum diversion volume of 20.1 AF. This volume did not take into account losses through evaporation. The license includes volume for evaporative losses.

The field examiner reported the developed surface area of the pond as 3.3 acres but was measured in ArcMap to be 3.3 acres. The design surface area was actually 5.07 acres. Because of the change in the actual surface developed in contrast to what was designed, the calculated evaporative losses are different than what was originally estimated. The volume to be appropriated for evaporative loss reflected on the license was calculated by taking the ratio of the estimated pond surface area and associated evaporative losses and applying that to the developed surface area of 3.3 acres.

Design		Actual	
8.96 AF	=	$\frac{x}{3.3 \text{ ac}}$	x = 5.8 AF evaporative loss
5.07 ac			

Actual surface area of the pond measured using ArcMap is 3.3 acres. Pond capacity is (3.3 ac * 14 feet deep * 0.4) = 18.5 af. The actual evaporative loss is calculated to be 5.8 AF. Total volume for the pond is 5.6 af + 18.5 af = 24.3 af. Permit limits max volume to 24.1 so the volume allocated for evaporative losses was reduced to 5.6 AF.

Mitigation Condition

Permit condition number 5 pertaining to mitigation states that the ground to be dried up is under 22-153 is located in the NENE, S27, T5N, R46E when the actual ground under 22-153 that was dried up is in the NESE, S27, T5N, R45E. This is not a significant change as outlined in Water Appropriation rules (IDAPA 37.03.08.035.04.a) therefore an amendment is not needed to correct the language in permit condition #5 when it is carried over to licensing.

The mitigation requirement under this permit has been met.

Source

Because we are identifying one POD, the source of "Spring" is appropriate.

POD Location

Examiner could not locate exact PODs as there is no water flowing into or out of the pond. POD is within the foot print of the pond. In the situation where the source is suspected to be from seepage/or multiple springs in the footprint of the pond, but we cannot lock down exactly where the POD is located, the practice is to identify one, main point of diversion. I used a centroid for the QQQ as that falls within the pond foot print.