

APPENDIX C: Examples of calculations for different GDE types for stressor risk factors due to falling groundwater level trends; stressor and threat risk factors for non-native species, and stressor and threat risk factors due to additional impacts of human development

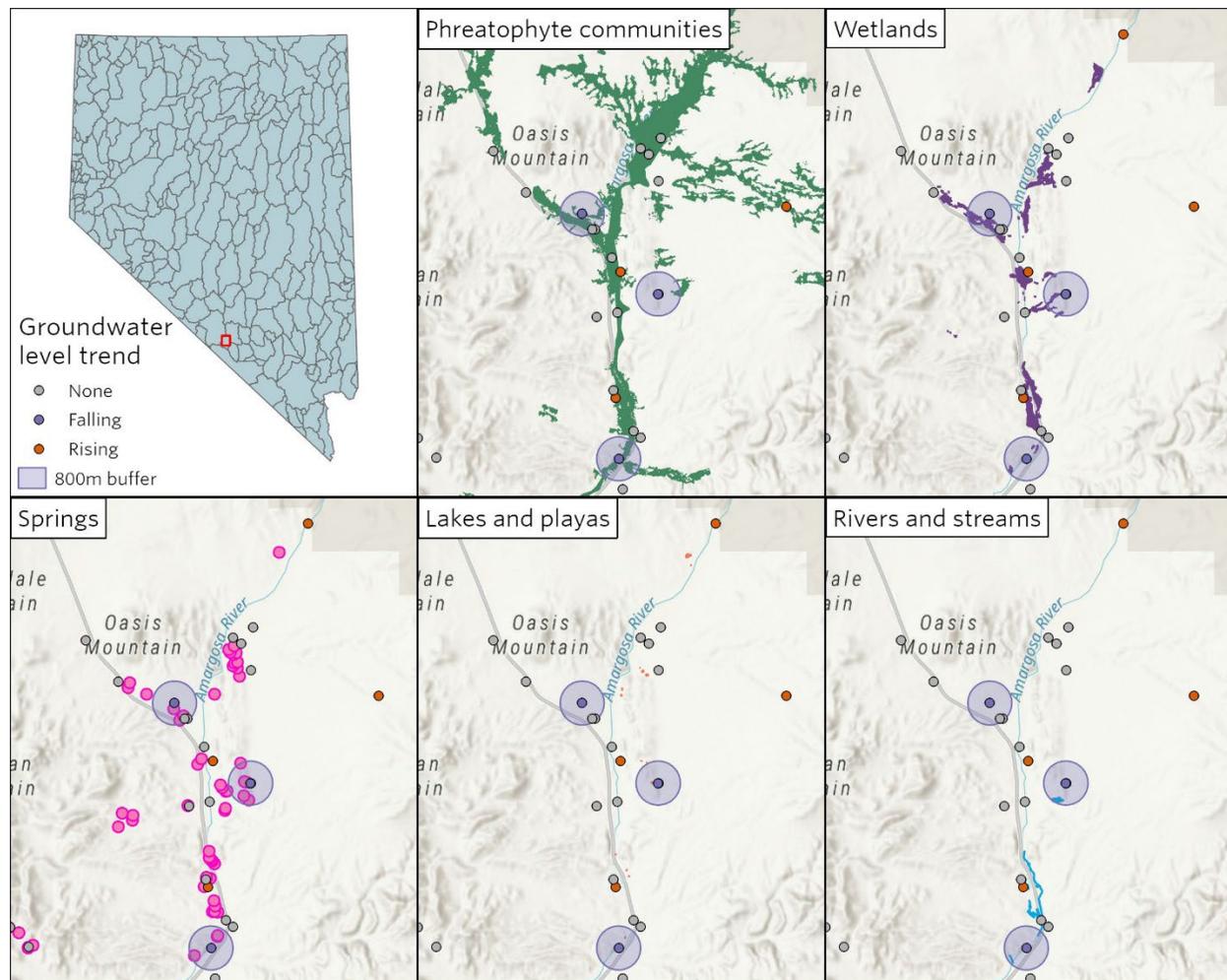


Figure C-1. Example of calculations for stressor risk factor of falling groundwater level trends for different GDE types. Purple dots are wells with significantly falling groundwater level trends and the circles around these dots show the 800-m (0.5 mile) radius around these wells. Indicators of phreatophyte communities (shown in green in middle top panel), groundwater-dependent wetlands (shown in purple in top right panel), springs (shown in pink in lower left panel), groundwater-dependent lakes and playas (middle lower panel; none are located in this image), and groundwater-dependent rivers and streams (shown in blue lines in lower right panel) within 800 m (0.5 mile) of the three sites with falling trends were given a stressor risk factor value of 1.0 for falling groundwater levels. All other iGDEs in the panels were given a stressor risk factor value of 0.1.

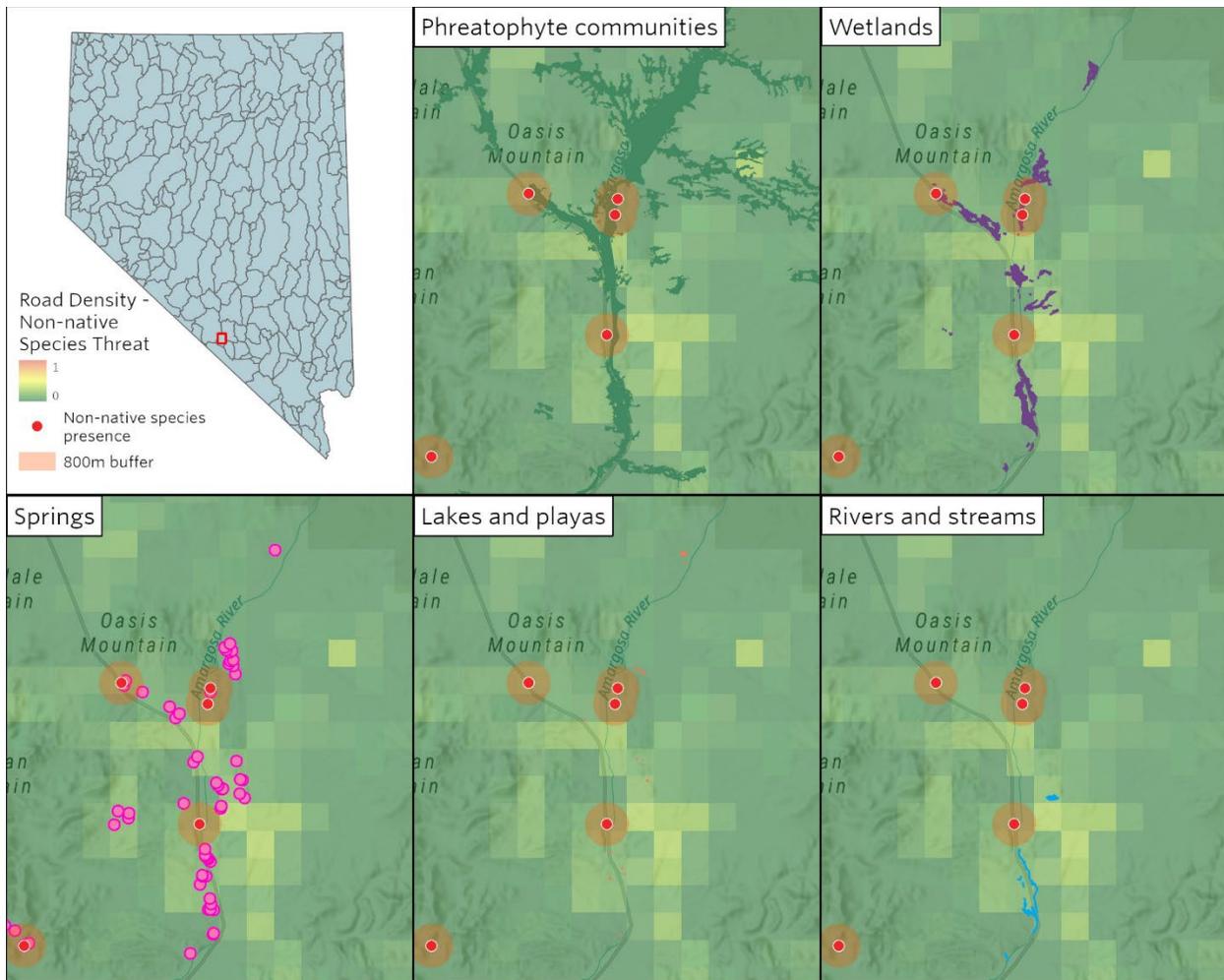


Figure C-2. Example of calculations for stressor and threat risk factors for non-native species for different GDE types. Red dots are locations with non-native species presence and the circles around these wells show the 800-m (0.5 mile) radius around these wells. Indicators of phreatophyte communities (shown in green in middle top panel), groundwater-dependent wetlands (shown in purple in top right panel), springs (shown in pink in lower left panel), groundwater-dependent lakes and playays (middle lower panel; none are located in this image), and groundwater-dependent rivers and streams (shown in blue lines in lower right panel) within 800 m (0.5 mile) of the three sites with known presence of non-native species were given a stressor risk factor value of 1.0 for presence of non-native species. All other iGDEs in the panels were given a stressor risk factor value of 0.1 for presence of non-native species. Also shown is the normalized road density raster for non-native species threat. Indicators of GDEs were assigned the non-native species threat risk factor value of the associated normalized road density raster on which they overlap.

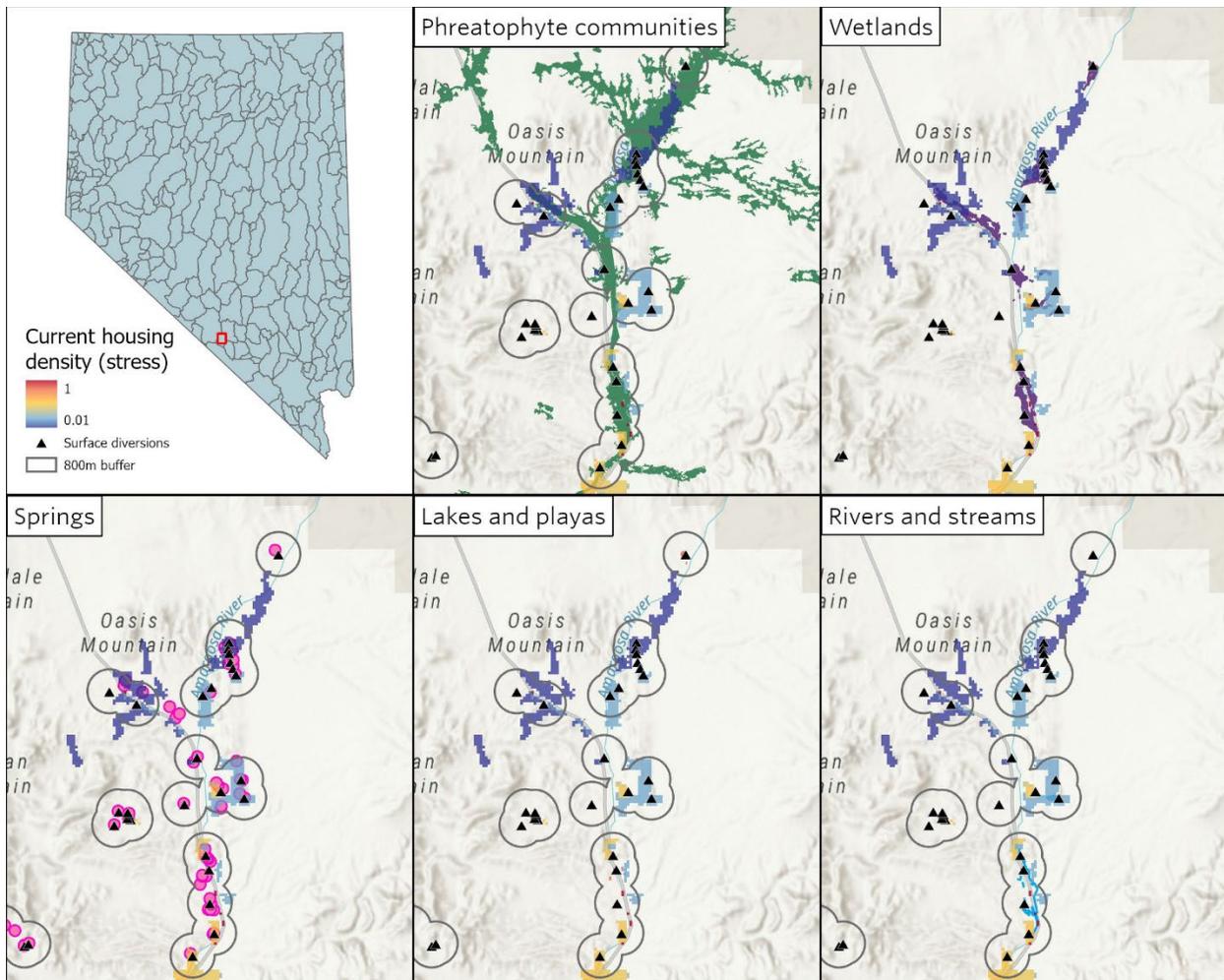


Figure C-3. Example of calculations for stressor risk factors for additional human development for different GDE types. Black triangles indicate points of diversion (PODs) for surface water and the circles around these dots show the 800-m (0.5 mile) radius around these PODs. Indicators of phreatophyte communities (shown in green in middle top panel), groundwater-dependent wetlands (shown in purple in top right panel), springs (shown in pink in lower left panel), groundwater-dependent lakes and playas (middle lower panel; none are located in this image), and groundwater-dependent rivers and streams (shown in blue lines in lower right panel) within 800 m (0.5 mile) of the PODs a stressor risk factor value of 1.0 for falling groundwater levels. All other iGDEs in the panels were given a POD stressor risk factor value of 0.1. Also shown are the locations of current normalized current house density stressor risk factor values. Areas of current housing density normalized stressor risk factor values are shown with the color ramp from blue (negligible risk) to red (high risk). Only areas with current housing density data are shown; it is assumed there is no current housing density risk if the color ramped areas are not shown. Indicators of GDEs were assigned the current housing density stressor risk factor value on which they overlap.

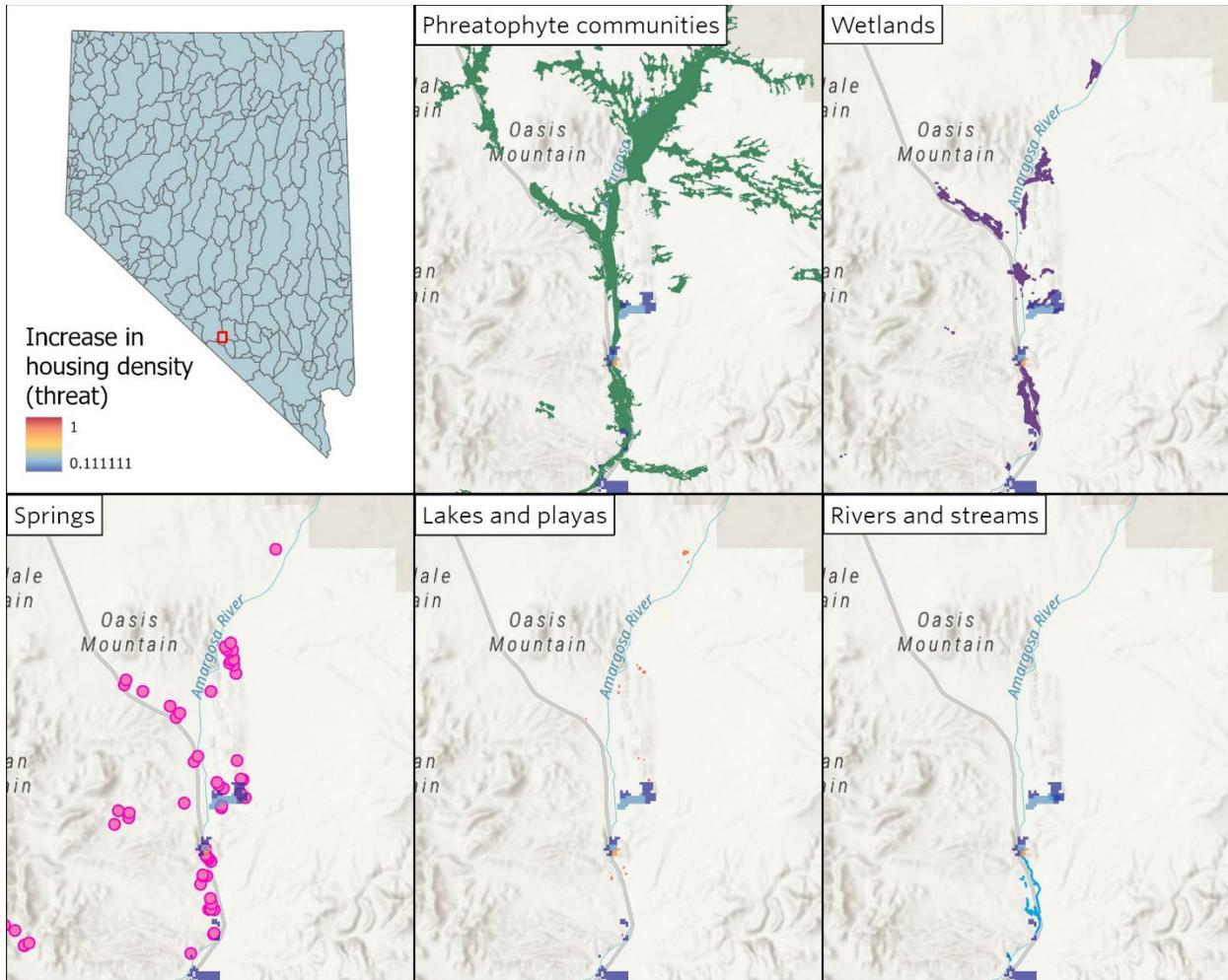


Figure C-4. Example of calculations for threat risk factor for additional human development for different GDE types. Areas of future increased housing density normalized threat risk factor values are shown with the color ramp from blue (negligible risk) to red (high risk). Only areas with future increased housing density data are shown; it is assumed there is no future housing density risk if the color ramped areas are not shown. Indicators of phreatophyte communities (shown in green in middle top panel), groundwater-dependent wetlands (shown in purple in top right panel), springs (shown in pink in lower left panel), groundwater-dependent lakes and playays (middle lower panel; none are located in this image), and groundwater-dependent rivers and streams (shown in blue lines in lower right panel) were assigned the future increased housing density threat risk factor value on which they overlap.