CA_WILDFIRE_PLOTS

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Read MFRI

```
all_mfri = list.files('./Wildfire_MFRI/',pattern = '.tif',full.names = T)
for(file in all_mfri){
  object_name = file_path_sans_ext(basename(file))
  assign(object_name, raster(file))
}
```

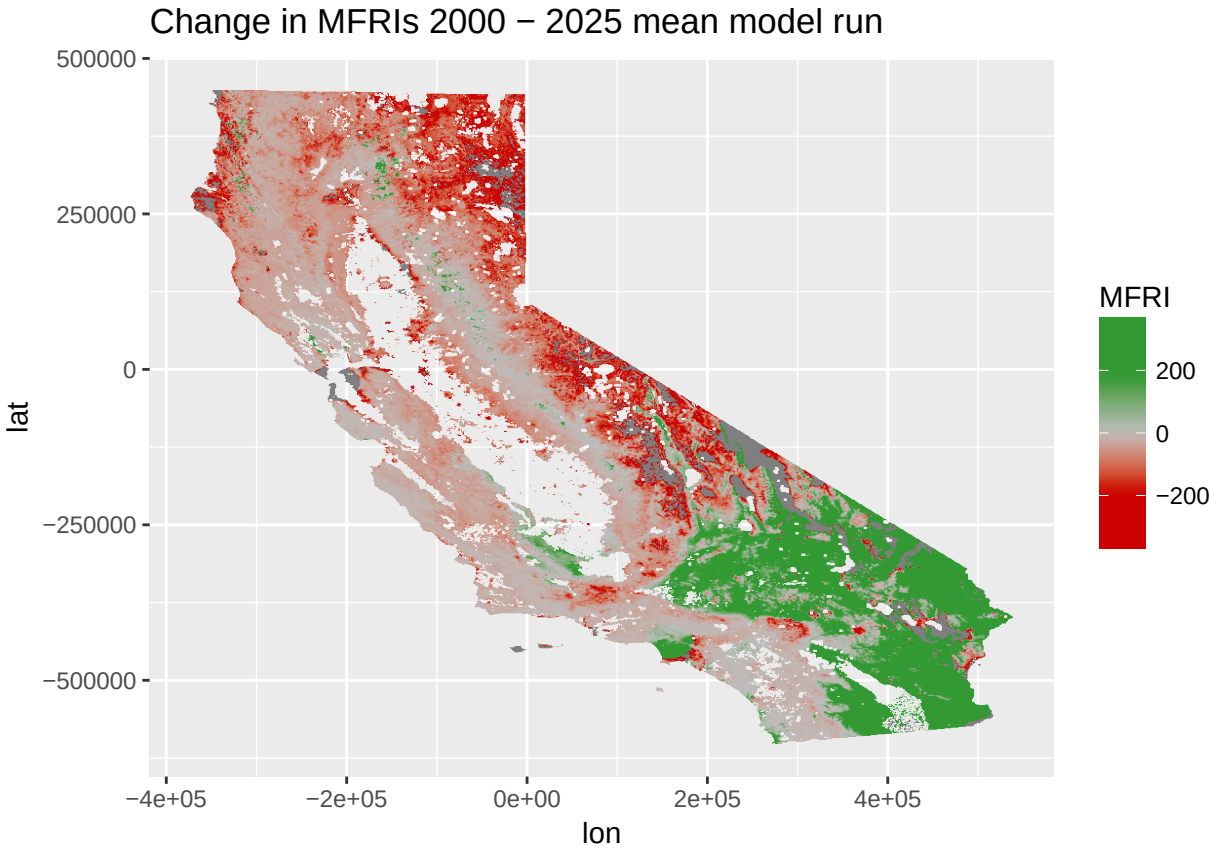
Get stats for 01-25 & 26-50 MFRIs cap at 500 years

```
all_2001_2025 = stack(all_mfri[grepl('2001_2025',all_mfri)])
all_2026_2050 = stack(all_mfri[grepl('2026_2050',all_mfri)])
capat=500
summary_functions = c('min','max','mean' )
for(summary in summary_functions){
  for(stac in c('all_2001_2025','all_2026_2050')){
     assign(paste(summary,stac,sep='_'),do.call(summary,list(x=get(stac),na.rm=T)))
     capper = get(paste(summary,stac,sep='_'))
     # write out df for ggplot
     capper.df = data.frame(rasterToPoints(capper))
     names(capper.df)  =c("lon", "lat","MFRI")
     assign(paste(summary,stac,'df',sep='_') ,capper.df)
     # cap at catat yrs
     capper[capper>capat]=capat
     assign(paste(summary,stac,'capped',sep='_'),capper)
  }}

 # write out df for ggplot
 MFRI_76_00.df = data.frame(rasterToPoints(MFRI_76_00))
 names(MFRI_76_00.df)  =c("lon", "lat","MFRI")
```

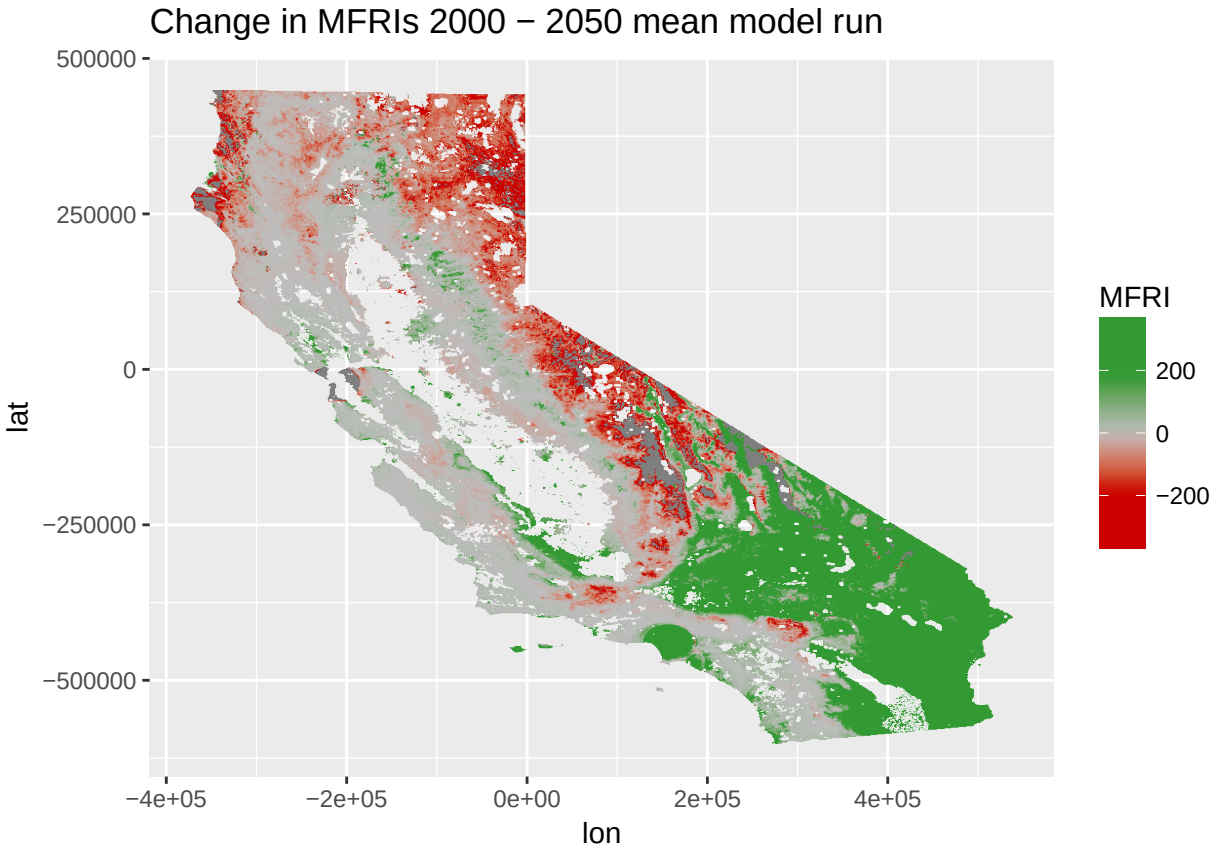
```
mean_chg_76_25 = MFRI_76_00.df
mean_chg_76_25$MFRI =  mean_all_2001_2025_df$MFRI-mean_chg_76_25$MFRI
mean_chg_76_25$MFRI[ mean_chg_76_25$MFRI >350]=350
rng= range(mean_chg_76_25$MFRI)

ggplot()+geom_raster(data=mean_chg_76_25,aes(x=lon,y=lat,fill=MFRI))+
  scale_fill_gradientn(colours= c("#cc0000", "#cc0000"  , 'grey', "#339933","#339933" ), #colors in
     limits=c(-350, 350))+ #same limits for plots
  ggtitle('Change in MFRIs 2000 - 2025 mean model run')
```




```
mean_chg_76_50 = MFRI_76_00.df
mean_chg_76_50$MFRI =  mean_all_2026_2050_df$MFRI-mean_chg_76_50$MFRI
mean_chg_76_50$MFRI[ mean_chg_76_50$MFRI >350]=350
rng= range(mean_chg_76_50$MFRI)

ggplot()+geom_raster(data=mean_chg_76_50,aes(x=lon,y=lat,fill=MFRI))+
  scale_fill_gradientn(colours= c("#cc0000", "#cc0000"  , 'grey', "#339933","#339933" ), #colors in
                limits=c(-350, 350))+ #same limits for plots
   ggtitle('Change in MFRIs 2000 - 2050 mean model run')
```


Change in MFRIs 2000 − 2050 mean model run
500000
250000
0
−250000
−500000
lat
−4e+05
−2e+05
0e+00
2e+05
4e+05
lon
MFRI
200
0
−200