

# Appendix 2-C. Groundwater Dependent Ecosystem Assessment

# Contents

<b>Additional Tables and Figures for the Identification of Groundwater Dependent Ecosystems</b>	<b>3</b>
GDE Analysis Results . . . . .	3
Tables . . . . .	3
Depth to Groundwater . . . . .	9
<b>References</b>	<b>33</b>

## Additional Tables and Figures for the Identification of Groundwater Dependent Ecosystems

The following section provides additional tables and figures that are mentioned in the main text of Section 2.2.2.7.

### GDE Analysis Results

Results of this grid-based analysis of mapped potential vegetative GDEs and their classification as connected or disconnected to groundwater for each of the 16 periods is presented below.

*[Work in Progress - One GDE map per period]*

### Tables

The union of the NCCAG vegetation and wetland layers and adapted 2016 Siskiyou County LU/LC dataset created several tables.

- New fields created by combining or concatenating the relevant fields in each dataset is identified in Table 1.
- Descriptions of classes in the NCCAG Wetland Dataset is shown in Table 2.
- Siskiyou County LU/LC classes are presented in Table 3.
- A summary of relationships between combined fields and assumed actions is presented in Table 4.

Table 1: Field Used to Create a Combined Representation of Mapped Potential GDE Coverage.

Dataset	Field Used
NCCAG Vegetation	Vegetation
NCCAG Wetland	ORIGINAL_C
DWR Siskiyou County	LABEL

Table 2: NCCAG Wetland Dataset Field Descriptions.

Class	Classification Description
PEM1C	Palustrine, Emergent, Persistent, Seasonally Flooded
PSSC	Palustrine, Scrub-Shrub, Seasonally Flooded

Table 2: NCCAG Wetland Dataset Field Descriptions.  
(continued)

Class	Classification Description
R5UBF	Riverine, Unknown Perennial, Unconsolidated Bottom, Semipermanently Flooded
PFOC	Palustrine, Forested, Seasonally Flooded
PUSC	Palustrine, Unconsolidated Shore, Seasonally Flooded
R2UBH	Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded
R3UBH	Riverine, Upper Perennial, Unconsolidated Bottom, Permanently Flooded
PEM1F	Palustrine, Emergent, Persistent, Semipermanently Flooded
45800	Seep or Spring

Table 3: Siskiyou County Land Use and Land Cover Field Descriptions.

Land Use/Land Cover Class	Description
G	Grain and Hay Crops
G1	Barley
G2	Wheat
G3	Oats
G3-H	Oats - harvested crop
G6	Miscellaneous grain and hay
G6-H	Miscellaneous grain and hay - harvested crop
G6-X	Miscellaneous grain and hay - partially irrigated
G-T	Grain and Hay Crops - tilled
I1	Idle but cropped within the past three years
I1-T	Idle but cropped within the past three years - tilled
I2	New land being prepared for crop production
NB	Barren and wasteland
NR4	Riparian vegetation - seasonal duck marsh
NR4-X	Riparian vegetation - seasonal duck marsh - partially irrigated
NR5	Riparian vegetation - permanent duck marsh
NV	Native vegetation
NW1	Water surface - river or stream (natural fresh water channels)

Table 3: Siskiyou County Land Use and Land Cover  
Field Descriptions. *(continued)*

Land Use/Land Cover Class	Description
NW2	Water surface - water channel for delivering water for irrigation and urban use
NW3	Water surface - water channel for removing on-farm drainage water
NW4	Water surface - freshwater lake, reservoir, or pond
P	Pasture
P1	Pasture - alfalfa & alfalfa mixtures
P3	Mixed pasture
P3-X	Mixed pasture - partially irrigated
P4	Native pasture
P4-X	Native pasture - partially irrigated
P6	Pasture - miscellaneous grasses
S1	Semiagricultural & incidental to agriculture - farmsteads (with farm residence)
S5	Semiagricultural & incidental to agriculture - farmsteads (with no farm residence)
S6	Semiagricultural & incidental to agriculture - miscellaneous semi-ag
T10	Onions and garlic
T12	Potatoes
T18	Miscellaneous truck crops
T20	Strawberries
UC	Commercial
UC1	Offices, retailers, etc.
UC4	Recreation vehicle parking and camp sites
UC5	Commercial institutions
UC6	Schools
UC7	Municipal auditoriums, theaters, churches, buildings and stands
UI	Industrial
UI1	Manufacturing, assembling, and general processing
UI14	Waste accumulation sites
UI2	Extractive industries
UI3	Storage and distribution
UI6	Saw mills
UL1	Law area - irrigated
UR	Residential
UR1	Single family dwellings with lot sizes greater than 1 acre up to 5 acres
UV	Vacant

Table 3: Siskiyou County Land Use and Land Cover  
Field Descriptions. (*continued*)

Land Use/Land Cover Class	Description
UV1	Vacant unpaved areas
UV3	Railroad right of way
UV4	Paved areas
UV6	Airport runways

Table 4: Master Vegetation Lookup Summary.

VEGETATION	ORIGINAL_C	LABEL	join_field	Possible_Action
	45800	NV	_45800_NV	Retain_Natural
	PEM1C	S5	_PEM1C_S5	Retain_Check
	PEM1C	NW2	_PEM1C_NW2	Retain_Check
	PEM1C	NW4	_PEM1C_NW4	Retain_Check
	PEM1C	NR4	_PEM1C_NR4	Retain_Natural
	PEM1C	P3	_PEM1C_P3	Retain_Check
	PEM1C	NV	_PEM1C_NV	Retain_Natural
	PEM1C	P4-X	_PEM1C_P4-X	Retain_Natural
	PEM1C	S1	_PEM1C_S1	Retain_Check
	PEM1C	P3-X	_PEM1C_P3-X	Retain_Check
	PEM1C	NR5	_PEM1C_NR5	Retain_Natural
	PEM1C	UR	_PEM1C_UR	Remove Ag.
	PEM1C	P1	_PEM1C_P1	Retain_Check
	PEM1C	P4	_PEM1C_P4	Retain_Natural
	PEM1C	UV1	_PEM1C_UV1	Retain_Check
	PEM1C	G6	_PEM1C_G6	Remove Ag.
	PEM1C	G	_PEM1C_G	Remove Ag.
	PEM1C	I1	_PEM1C_I1	Retain_Check
	PEM1C	UV4	_PEM1C_UV4	Remove Ag.
	PEM1C	P	_PEM1C_P	Retain_Check
	PEM1F	NV	_PEM1F_NV	Retain_Natural
	PFOC	NV	_PFOC_NV	Retain_Natural
	PFOC	P4-X	_PFOC_P4-X	Retain_Natural
	PSSC	NW2	_PSSC_NW2	Retain_Check
	PSSC	NV	_PSSC_NV	Retain_Natural
	PSSC	NW4	_PSSC_NW4	Retain_Check
	PSSC	P4-X	_PSSC_P4-X	Retain_Natural
	PSSC	UV1	_PSSC_UV1	Retain_Check
	PSSC	UV4	_PSSC_UV4	Remove Ag.
	PUSC	NV	_PUSC_NV	Retain_Natural
	R2UBH	NR4	_R2UBH_NR4	Retain_Natural
	R2UBH	NW2	_R2UBH_NW2	Retain_Check
	R2UBH	NV	_R2UBH_NV	Retain_Natural
	R3UBH	NV	_R3UBH_NV	Retain_Natural
	R3UBH	NW2	_R3UBH_NW2	Retain_Check
	R3UBH	UV4	_R3UBH_UV4	Remove Ag.
	R5UBF	NW2	_R5UBF_NW2	Retain_Check
	R5UBF	NV	_R5UBF_NV	Retain_Natural
	R5UBF	NR4	_R5UBF_NR4	Retain_Natural
	R5UBF	NW4	_R5UBF_NW4	Retain_Check
	R5UBF	P4-X	_R5UBF_P4-X	Retain_Natural

Table 4: Master Vegetation Lookup Summary. (continued)

VEGETATION	ORIGINAL_C	LABEL	join_field	Possible_Action
	R5UBF	UV1	_R5UBF_UV1	Retain_Check
	R5UBF	P4	_R5UBF_P4	Retain_Natural
	R5UBF	I1	_R5UBF_I1	Retain_Check
	R5UBF	UV4	_R5UBF_UV4	Remove Ag.
Wet Meadows		NV	Wet Meadows__NV	Retain_Natural
Wet Meadows		NR4	Wet Meadows__NR4	Retain_Natural
Wet Meadows		NW2	Wet Meadows__NW2	Retain_Check
Wet Meadows		P4-X	Wet Meadows__P4-X	Retain_Natural
Wet Meadows		NW4	Wet Meadows__NW4	Retain_Check
Wet Meadows		P3-X	Wet Meadows__P3-X	Retain_Check
Wet Meadows		UR	Wet Meadows__UR	Remove Ag.
Wet Meadows		UV4	Wet Meadows__UV4	Remove Ag.
Wet Meadows		G6	Wet Meadows__G6	Remove Ag.
Wet Meadows		UV1	Wet Meadows__UV1	Retain_Check
Wet Meadows	PEM1C	NW2	Wet Meadows_PEM1C_NW2	Retain_Check
Wet Meadows	PEM1C	NR4	Wet Meadows_PEM1C_NR4	Retain_Natural
Wet Meadows	PEM1C	P4-X	Wet Meadows_PEM1C_P4-X	Retain_Natural
Wet Meadows	PEM1C	UR	Wet Meadows_PEM1C_UR	Remove Ag.
Wet Meadows	PEM1C	UV4	Wet Meadows_PEM1C_UV4	Remove Ag.
Wet Meadows	PEM1C	NV	Wet Meadows_PEM1C_NV	Retain_Natural
Wet Meadows	PSSC	P4-X	Wet Meadows_PSSC_P4-X	Retain_Natural
Wet Meadows	R5UBF	NR4	Wet Meadows_R5UBF_NR4	Retain_Natural

Table 4: Master Vegetation Lookup Summary. (*continued*)

VEGETATION	ORIGINAL_C	LABEL	join_field	Possible_Action
Wet Meadows	R5UBF	P4-X	Wet Meadows_R5UBF_P4- X	Retain_Natural
Willow (Shrub)		NW2	Willow (Shrub)_NW2	Retain_Check
Willow (Shrub)		NV	Willow (Shrub)_NV	Retain_Natural
Willow (Shrub)		NR4	Willow (Shrub)_NR4	Retain_Natural
Willow (Shrub)		UV4	Willow (Shrub)_UV4	Remove Ag.
Willow (Shrub)		G6	Willow (Shrub)_G6	Remove Ag.
Willow (Shrub)		UV1	Willow (Shrub)_UV1	Retain_Check
Willow (Shrub)		I2	Willow (Shrub)_I2	Retain_Check
Willow (Shrub)	PEM1C	NW2	Willow (Shrub)_PEM1C_NW2	Retain_Check
Willow (Shrub)	PEM1C	G6	Willow (Shrub)_PEM1C_G6	Remove Ag.
Willow (Shrub)	PEM1C	NR4	Willow (Shrub)_PEM1C_NR4	Retain_Natural
Willow (Shrub)	R3UBH	NV	Willow (Shrub)_R3UBH_NV	Retain_Natural
		NR4	_NR4	Retain_Natural
		NR4-X	_NR4-X	Retain_Natural
		NR5	_NR5	Retain_Natural
		NW1	_NW1	Retain_Natural
		NW2	_NW2	Retain_Check

## Depth to Groundwater

Representations of depth to groundwater for each of the 23 representation of depth to groundwater are presented from Figure 1 to Figure 23.

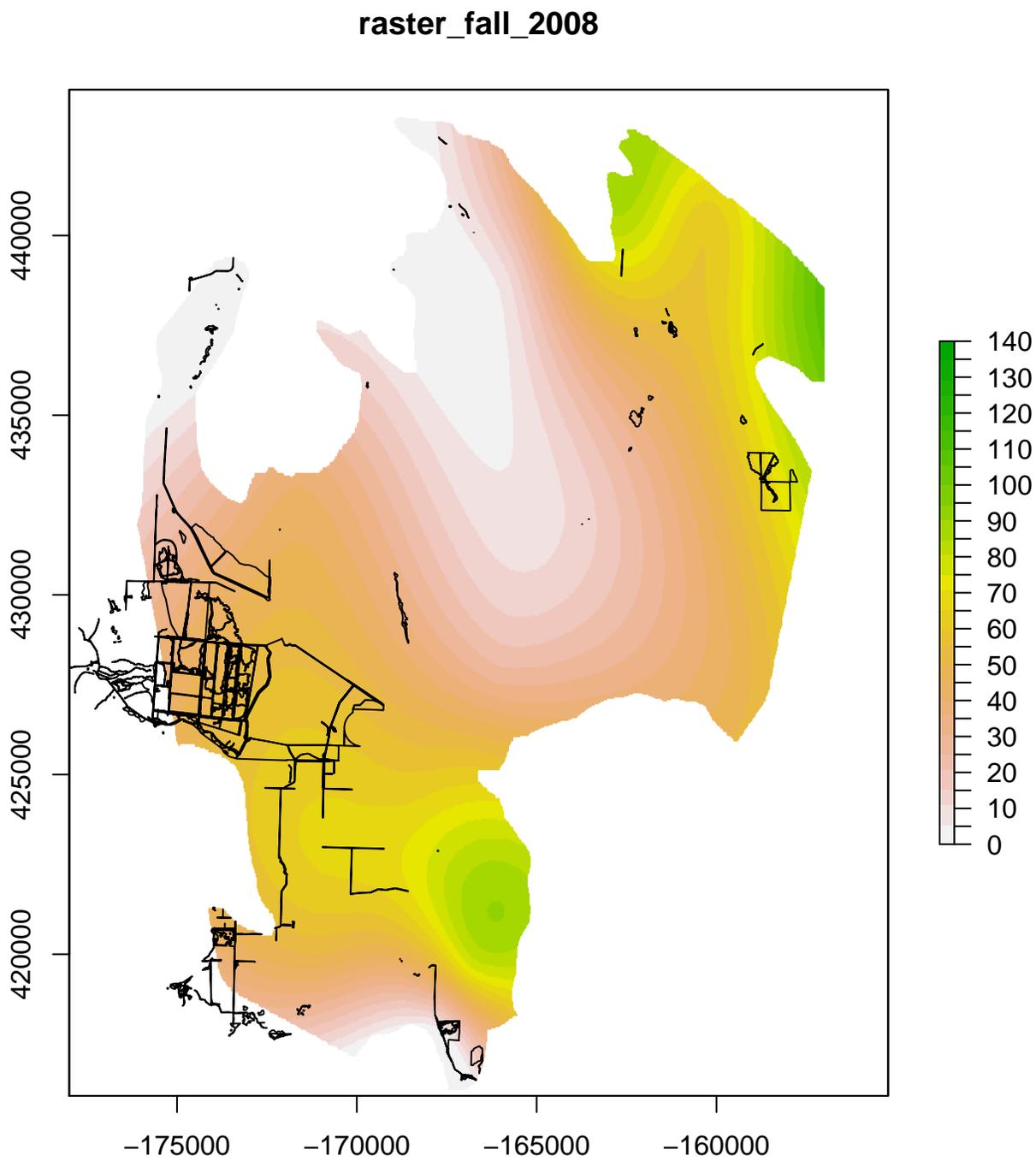


Figure 1: Depth to water, in feet below ground surface.

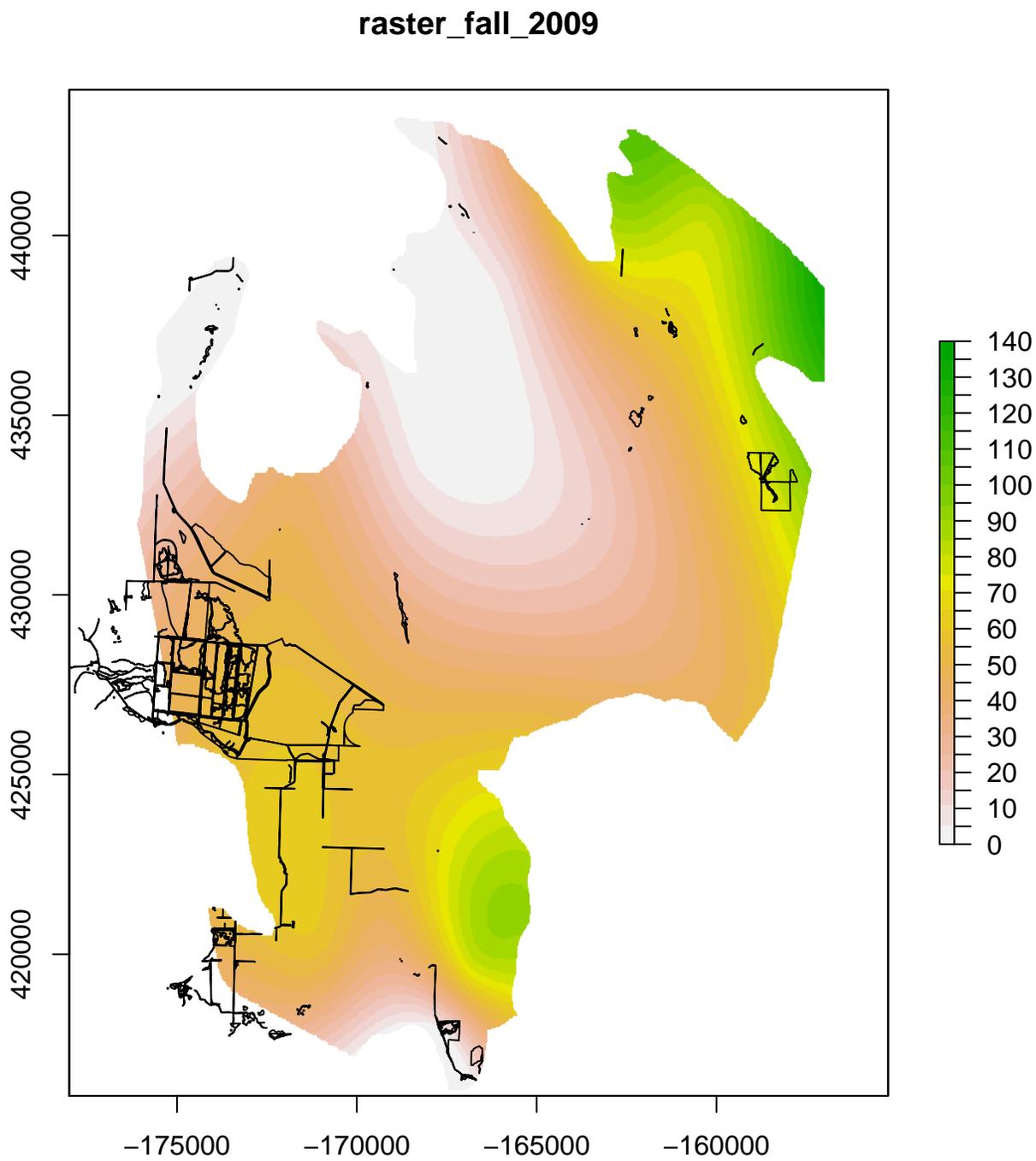


Figure 2: Depth to water, in feet below ground surface.

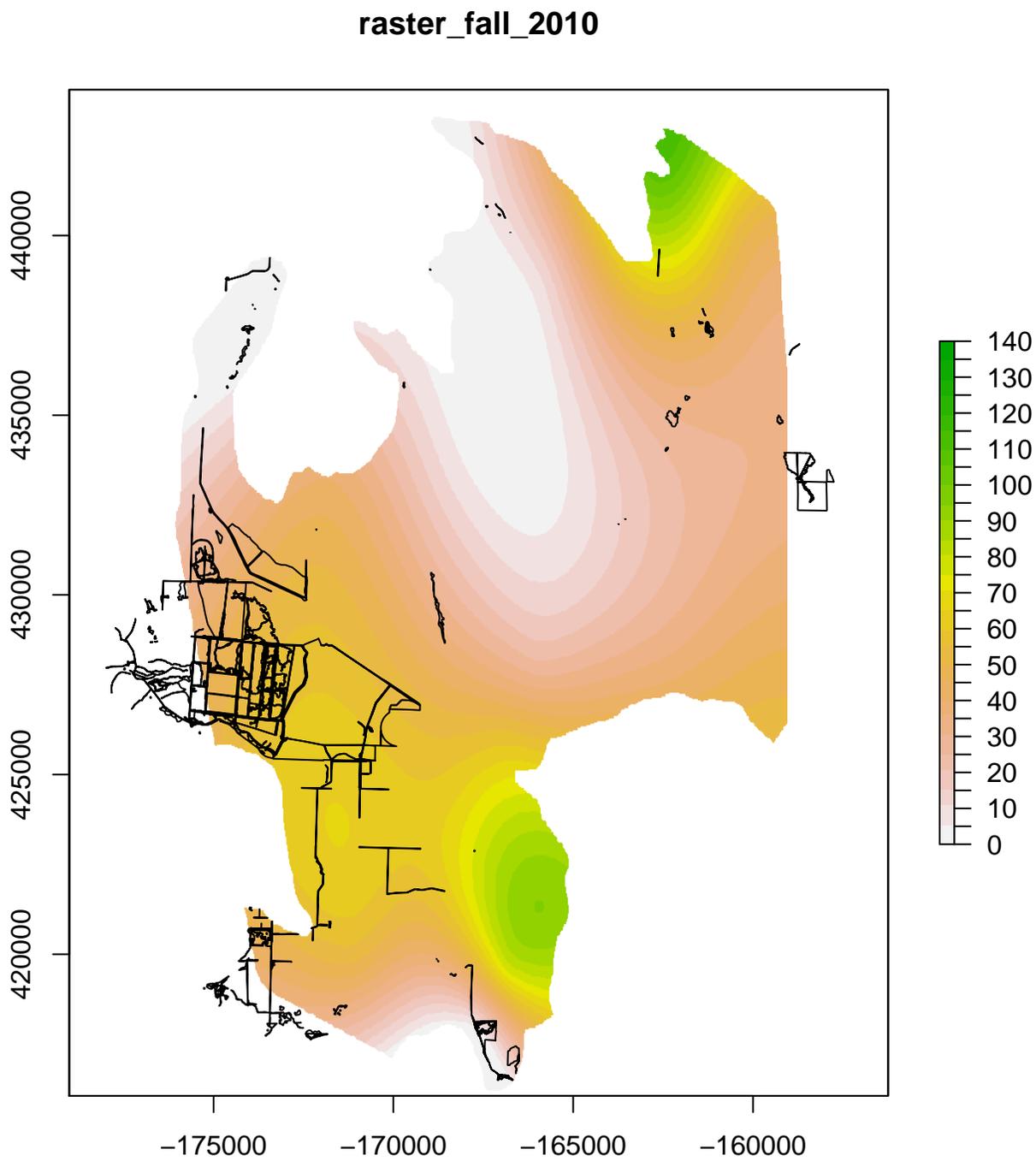


Figure 3: Depth to water, in feet below ground surface.

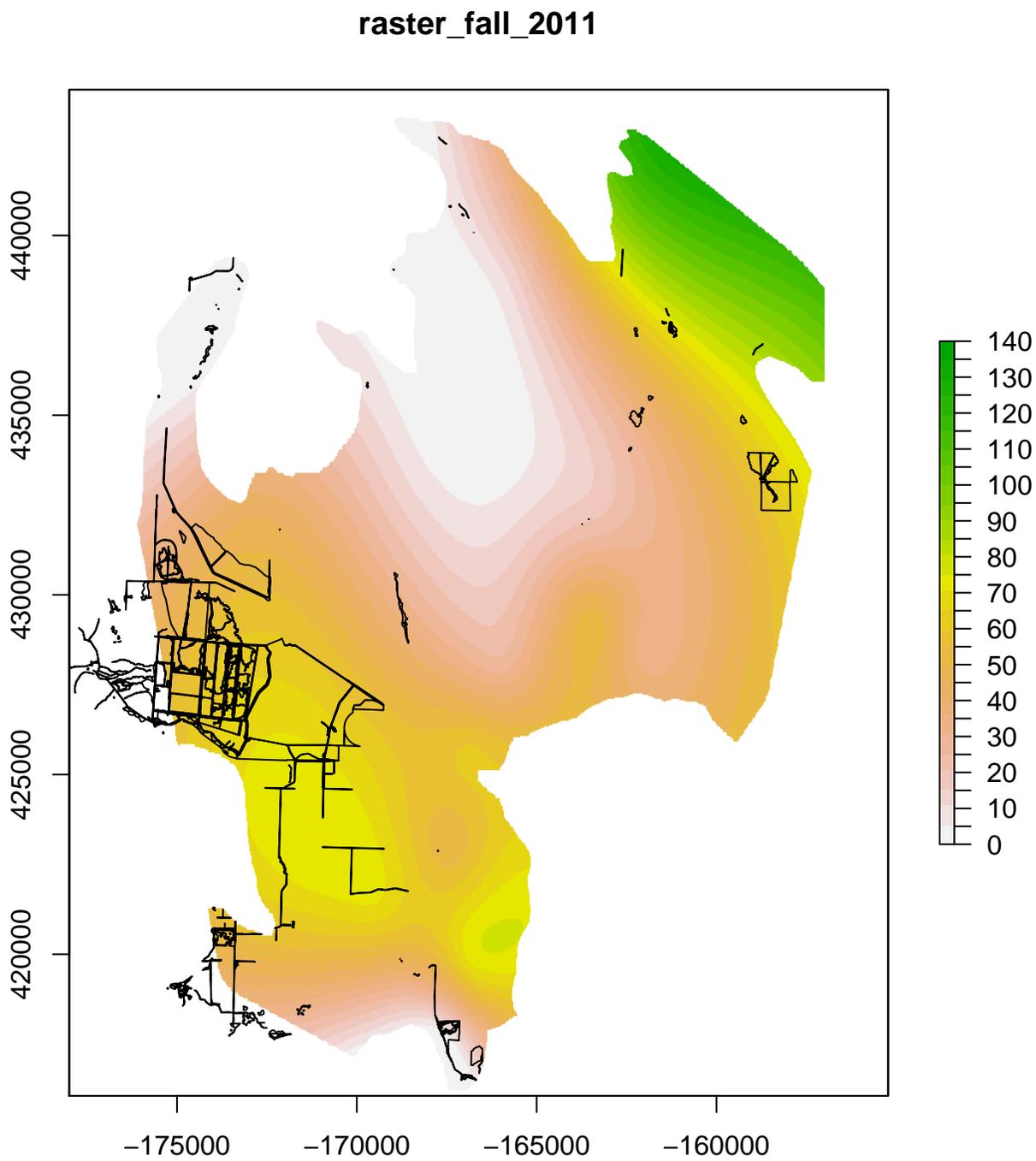


Figure 4: Depth to water, in feet below ground surface.

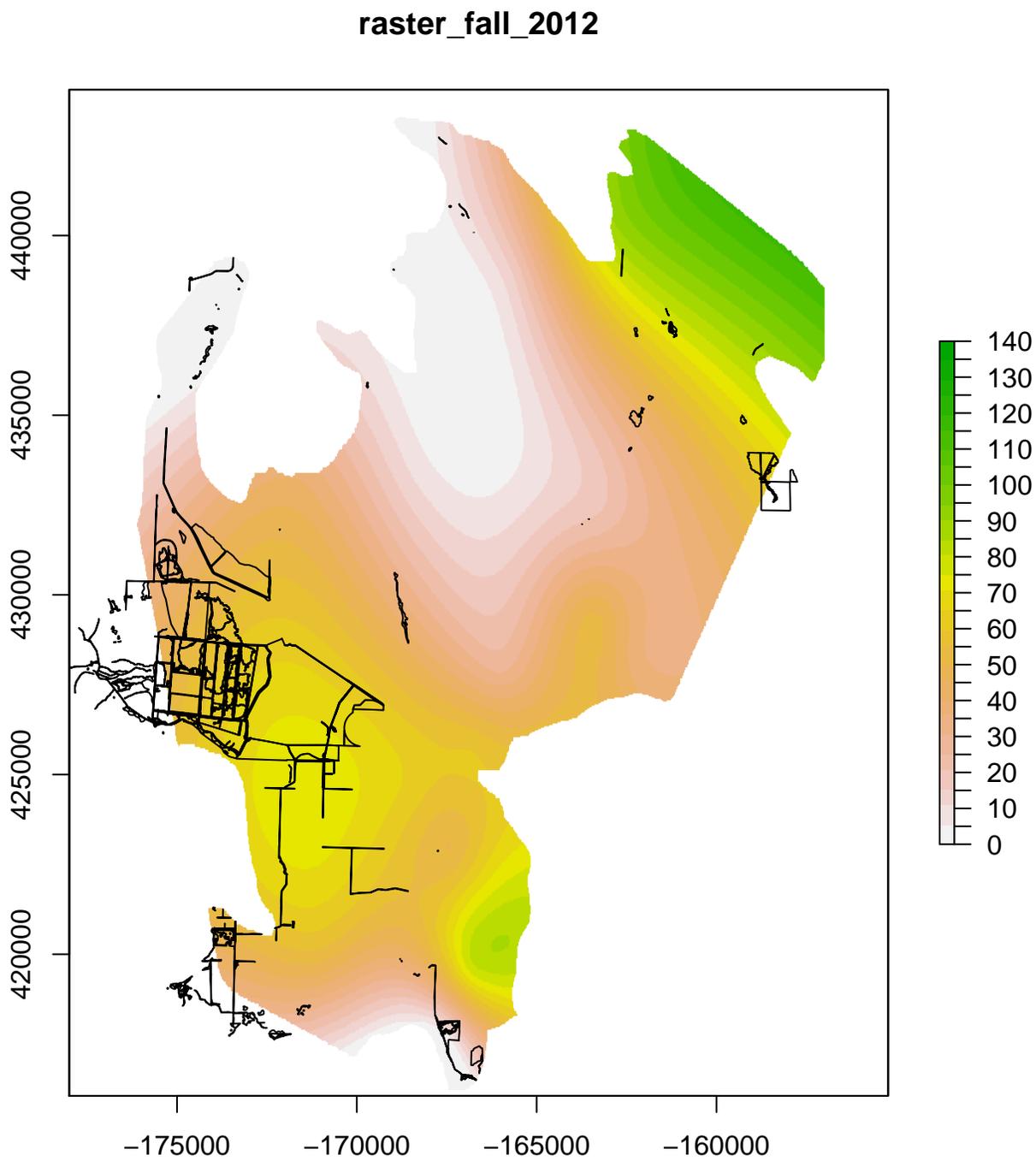


Figure 5: Depth to water, in feet below ground surface.

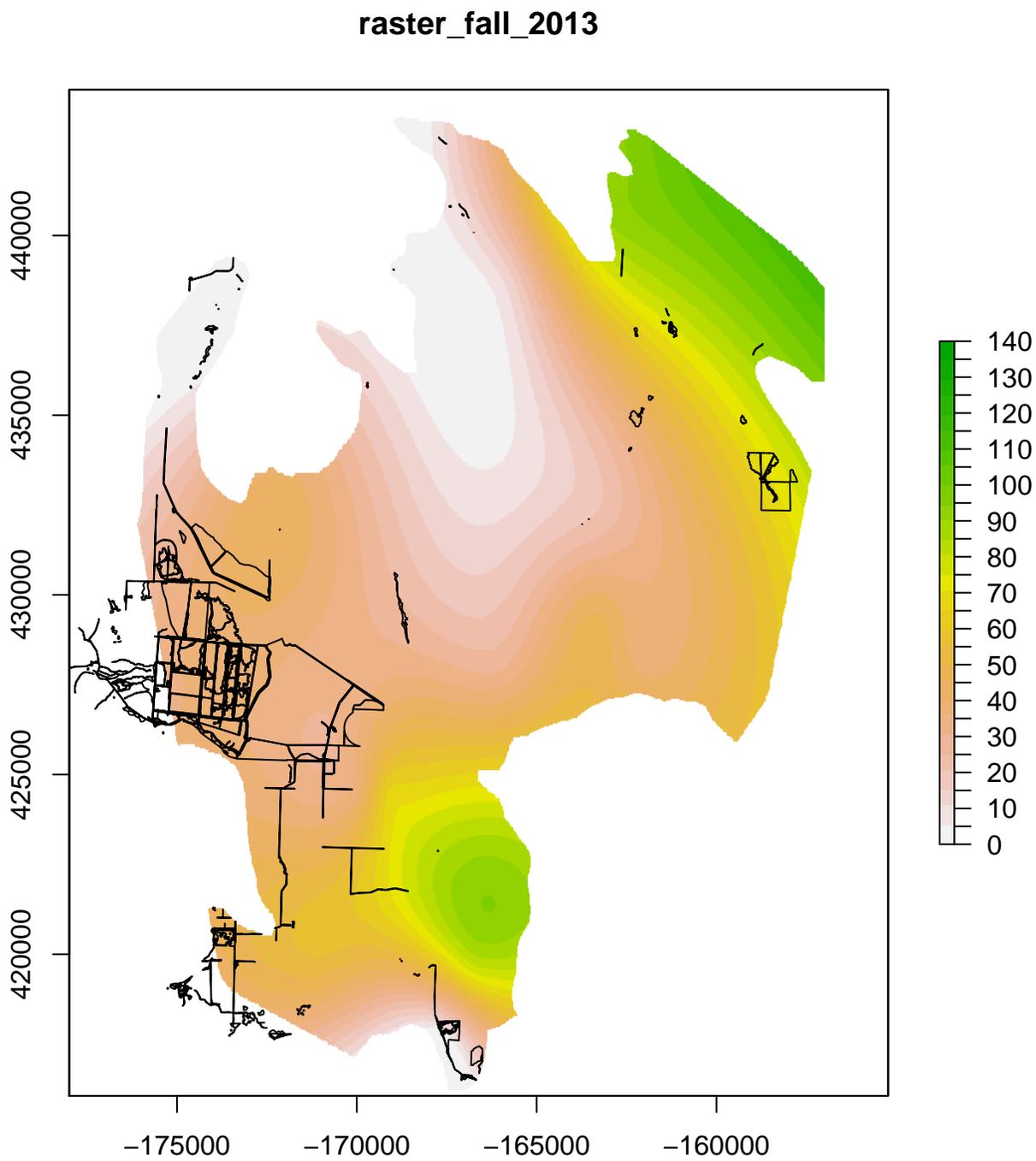


Figure 6: Depth to water, in feet below ground surface.

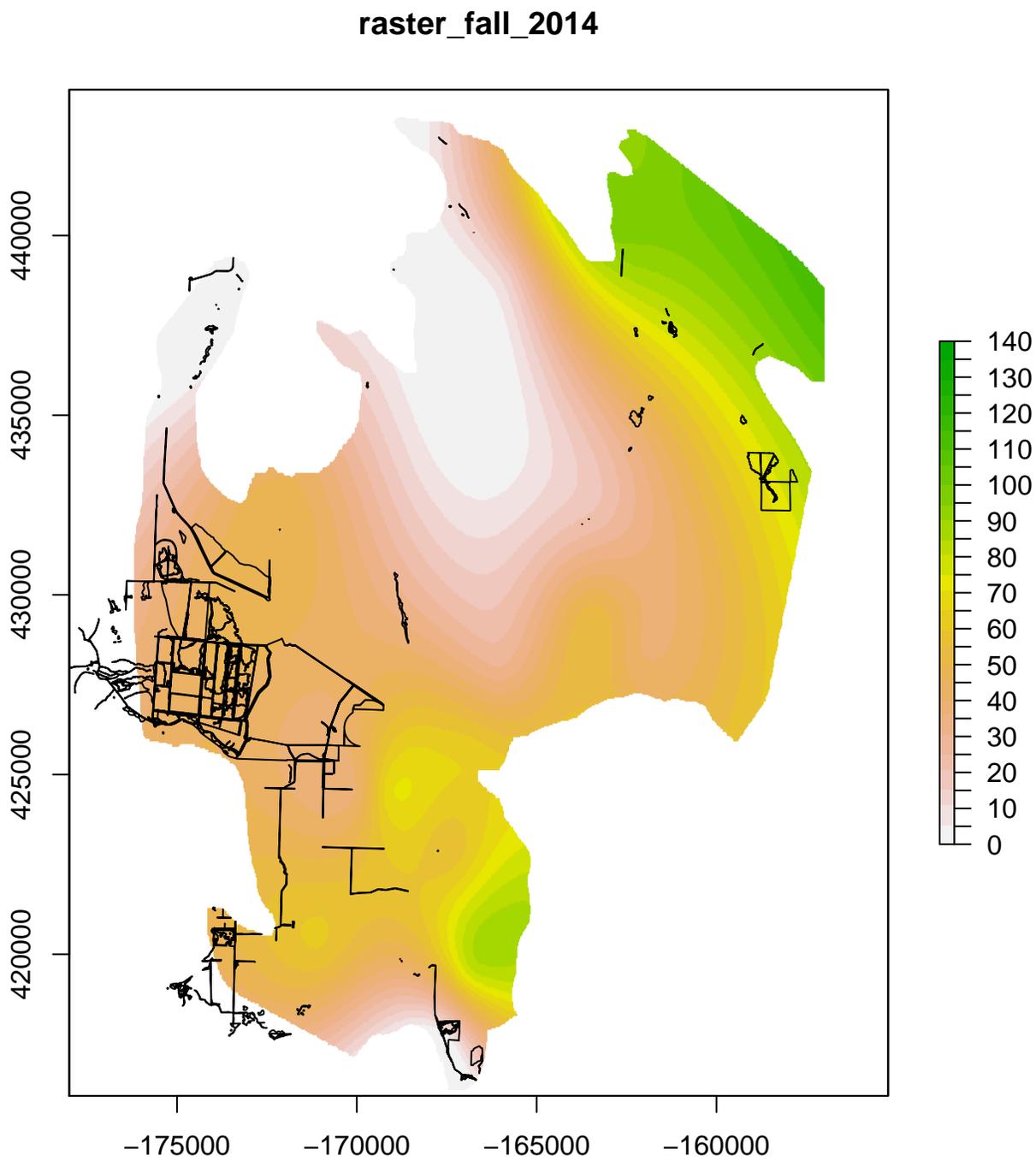


Figure 7: Depth to water, in feet below ground surface.

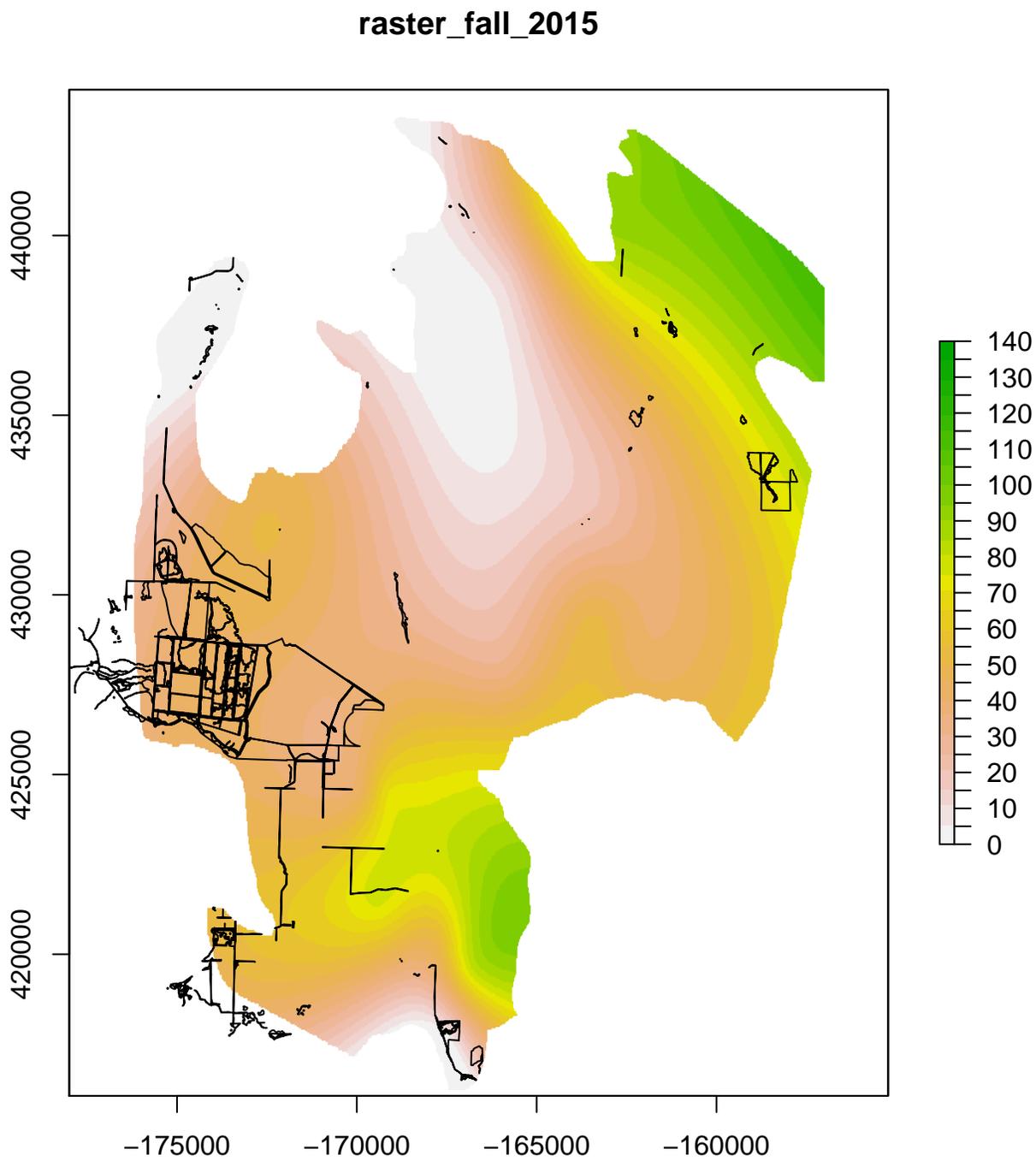


Figure 8: Depth to water, in feet below ground surface.

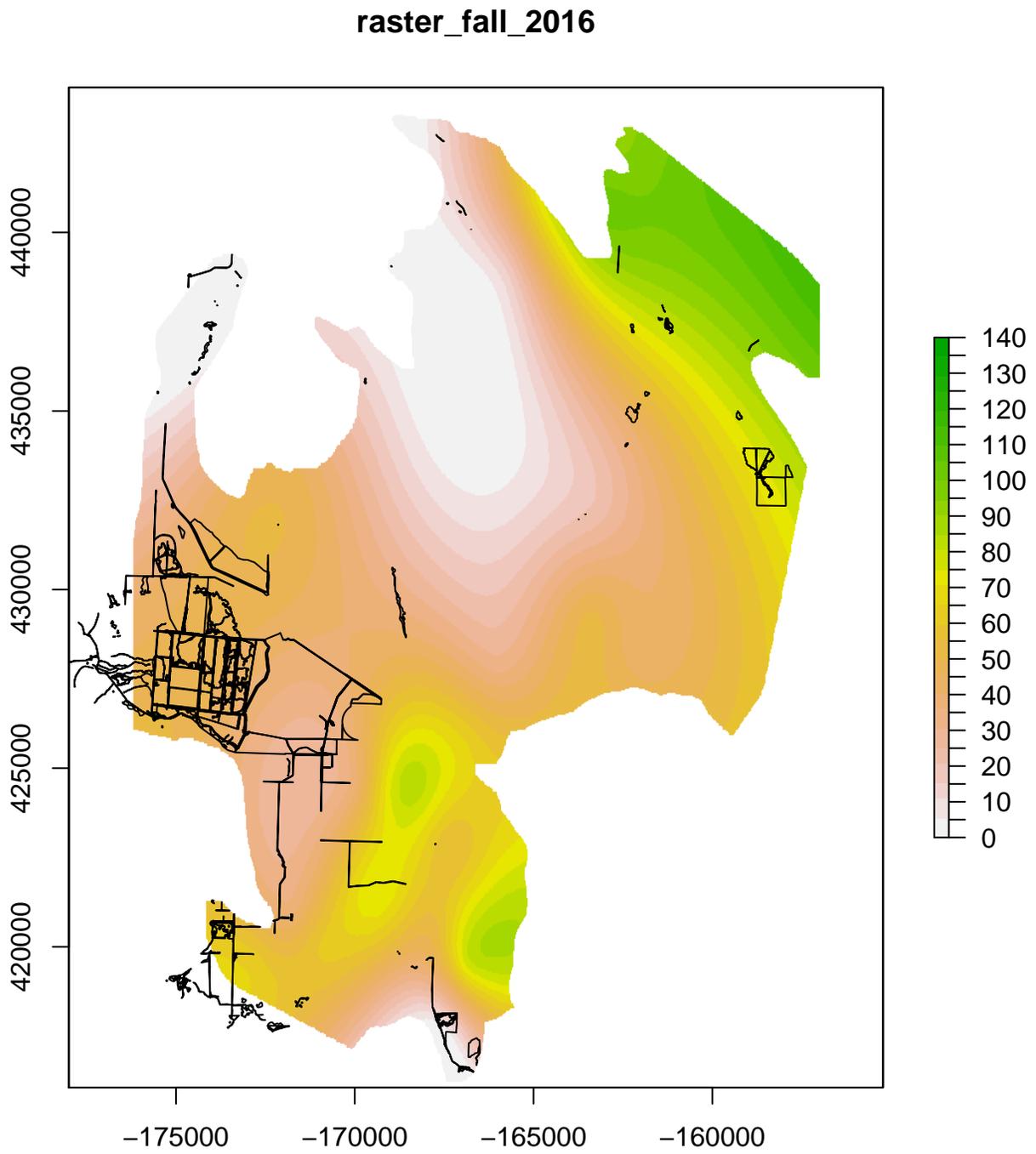


Figure 9: Depth to water, in feet below ground surface.

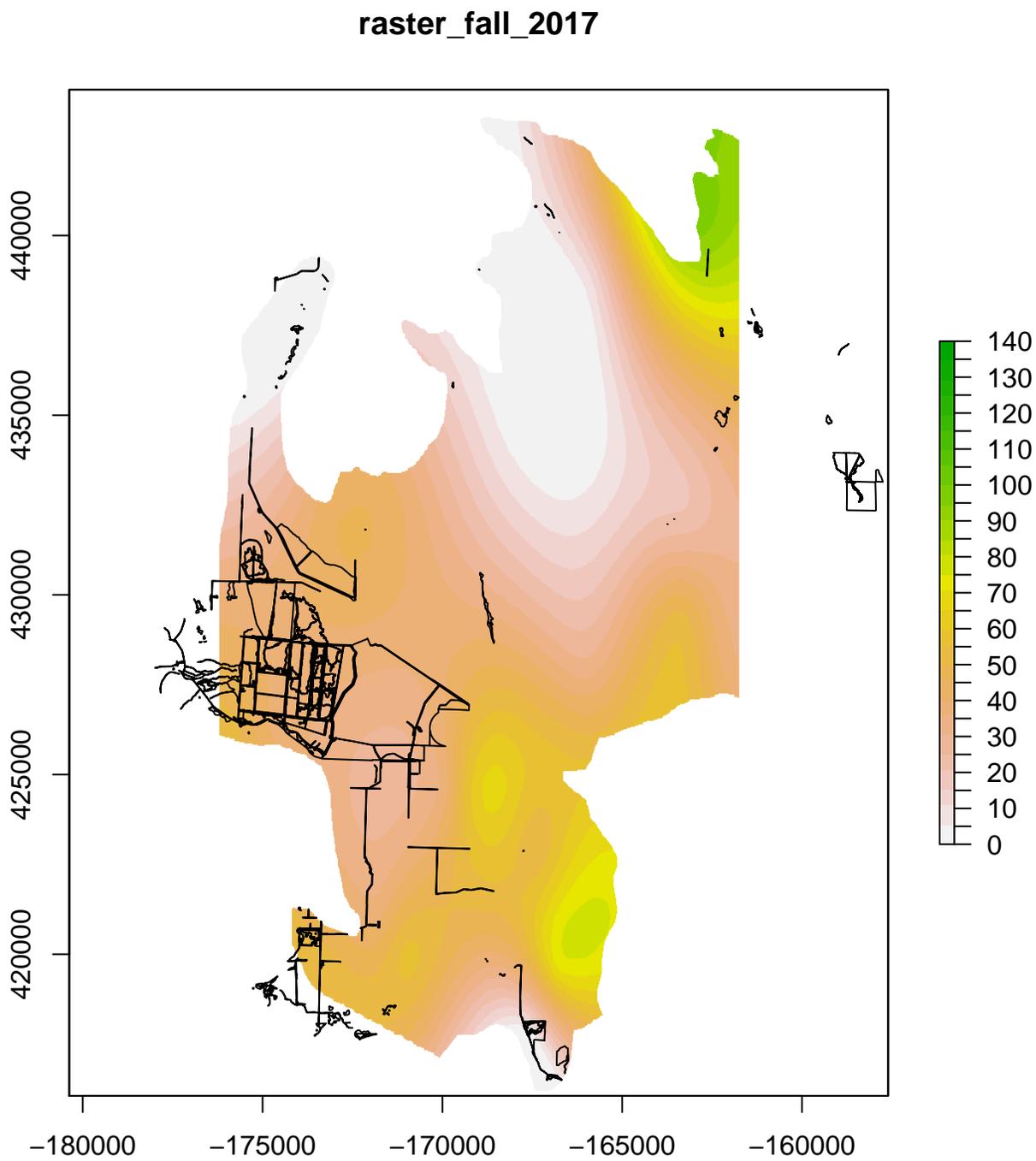


Figure 10: Depth to water, in feet below ground surface.

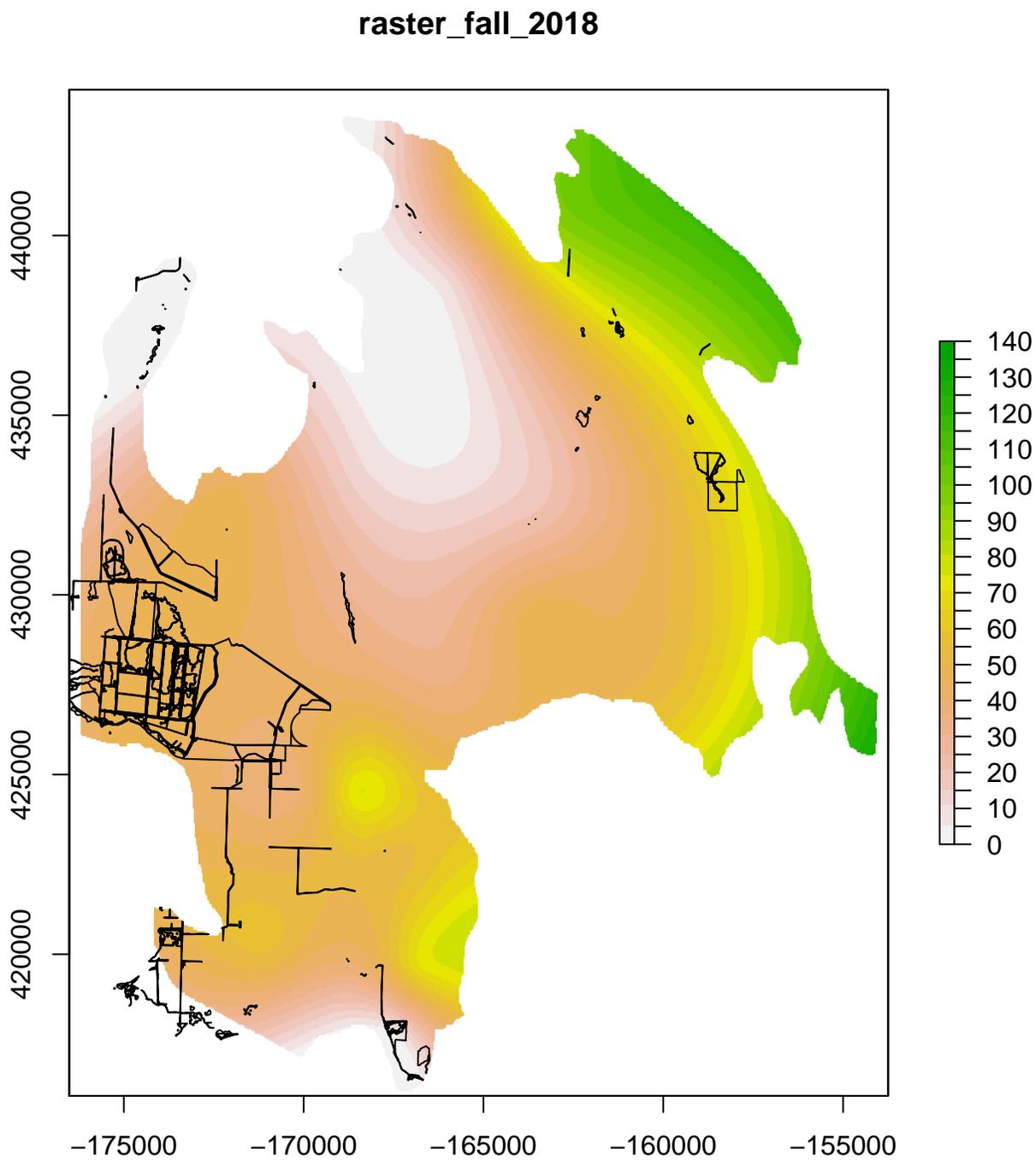


Figure 11: Depth to water, in feet below ground surface.

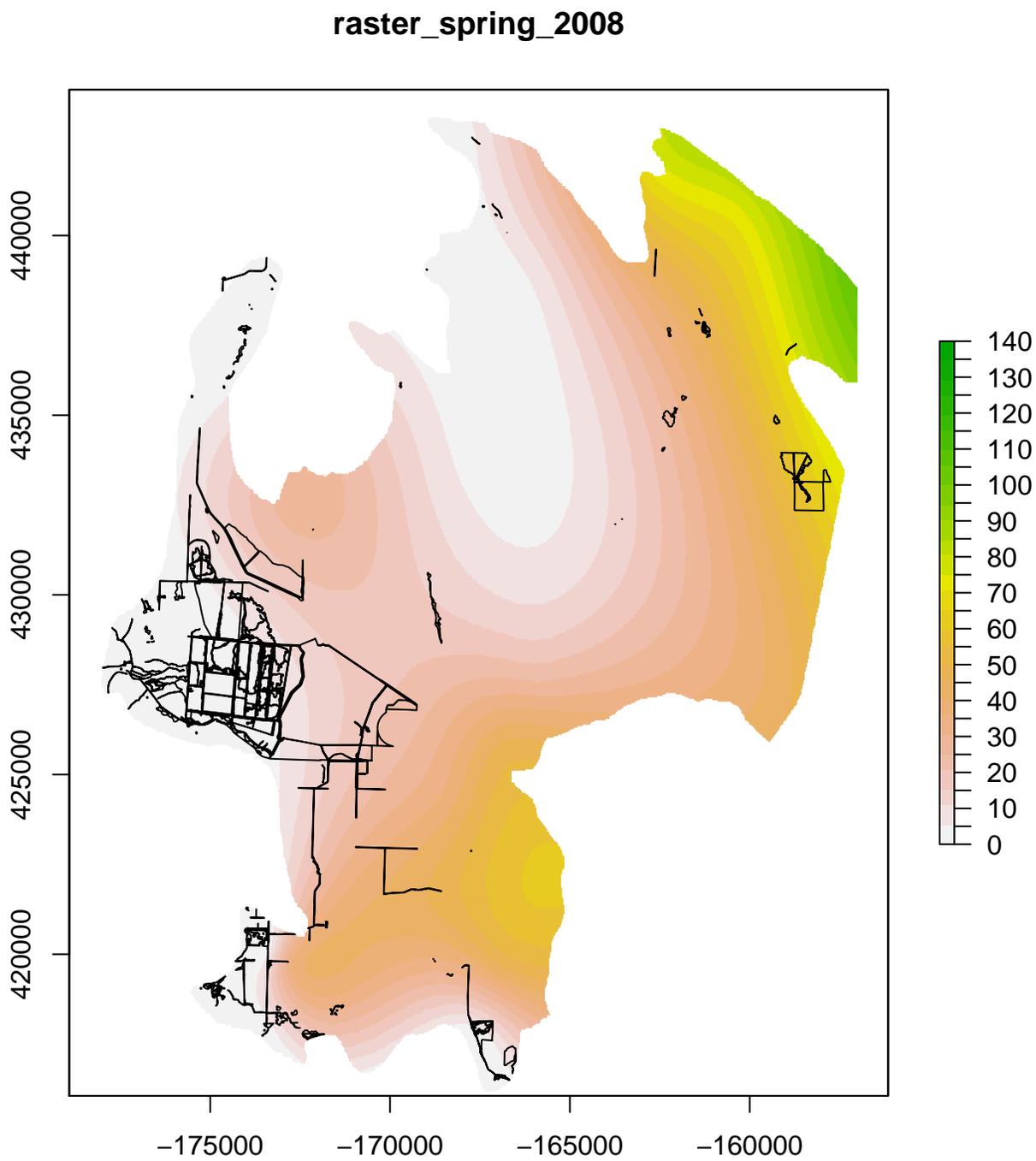


Figure 12: Depth to water, in feet below ground surface.

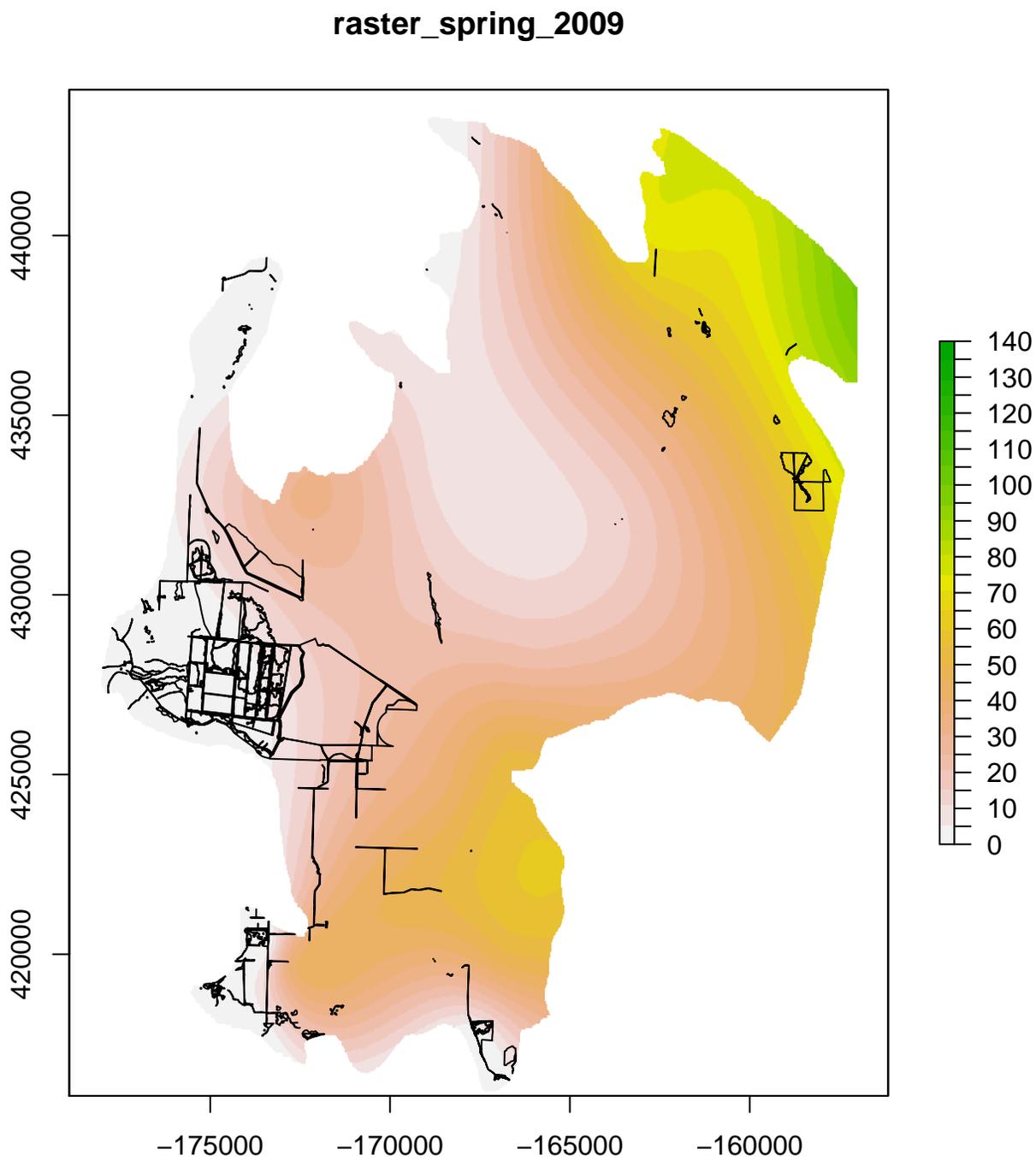


Figure 13: Depth to water, in feet below ground surface.

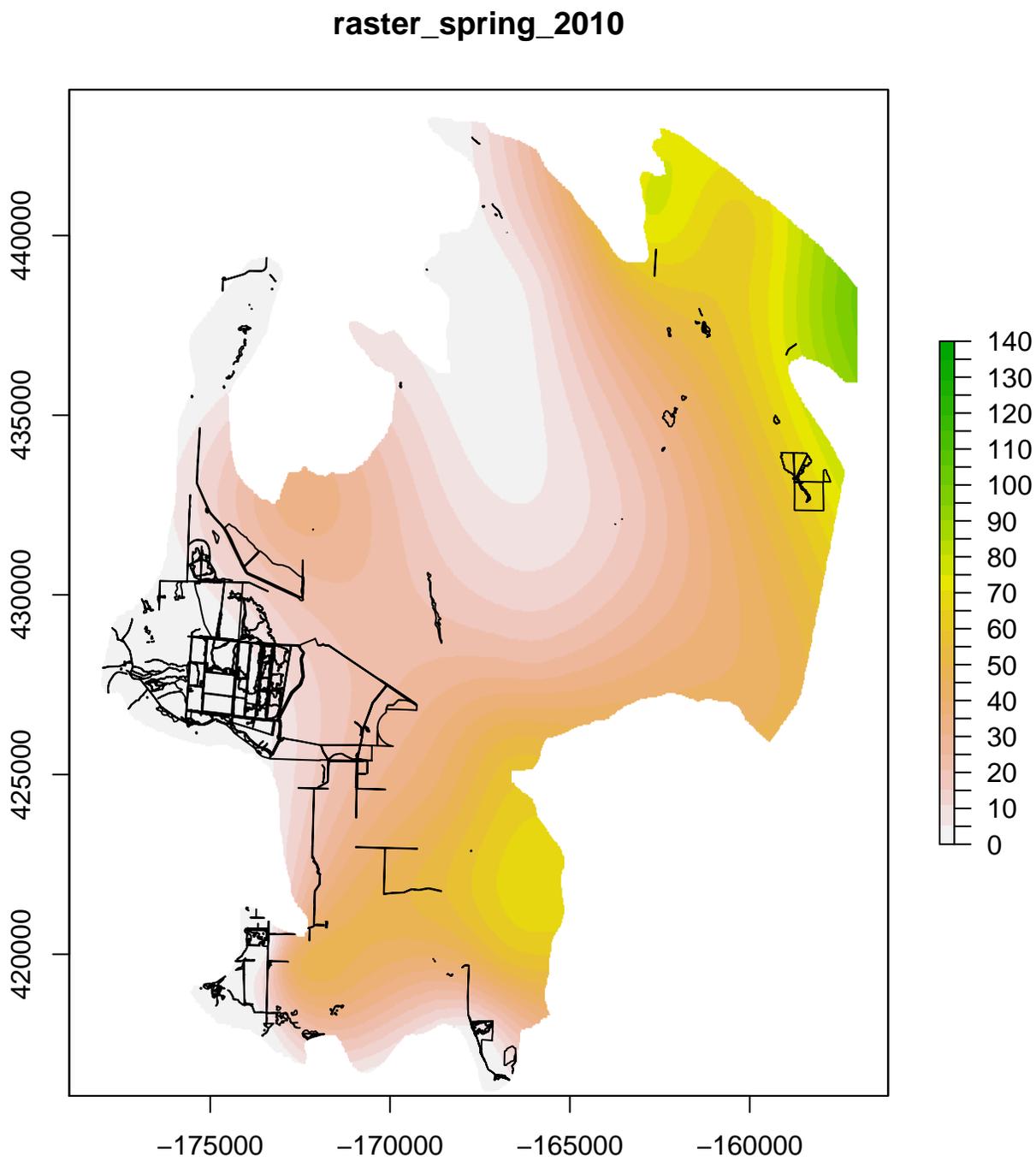


Figure 14: Depth to water, in feet below ground surface.

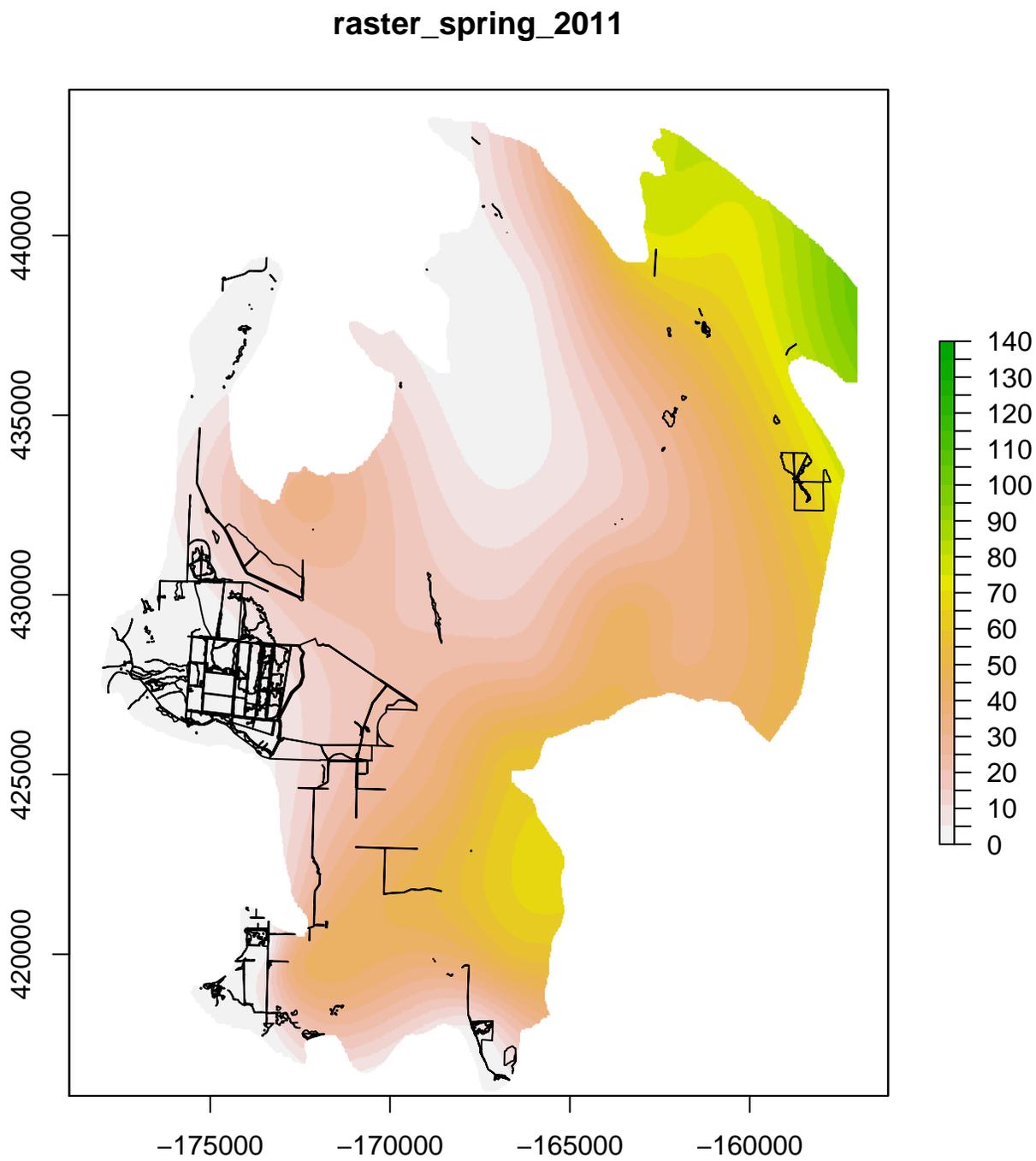


Figure 15: Depth to water, in feet below ground surface.

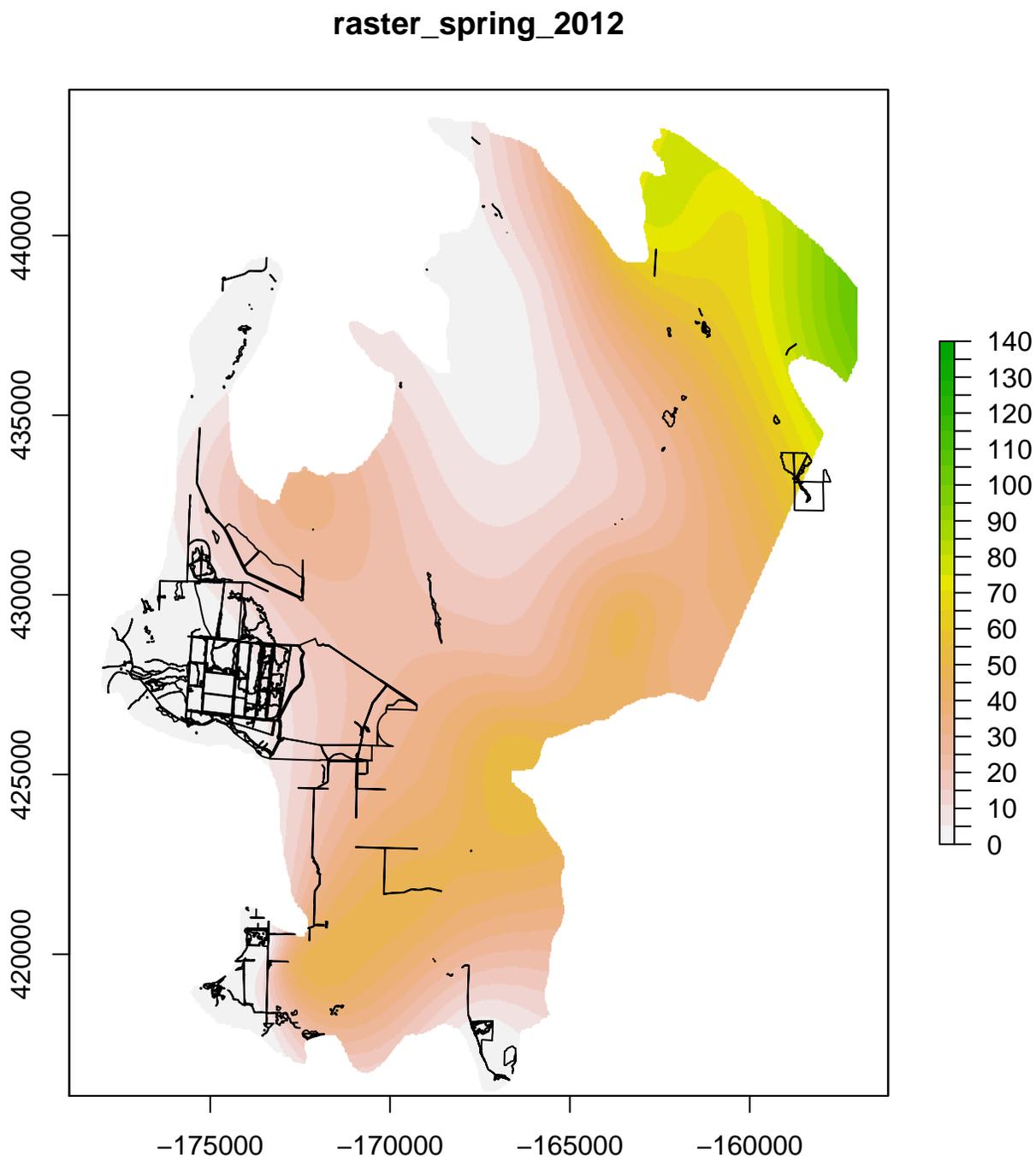


Figure 16: Depth to water, in feet below ground surface.

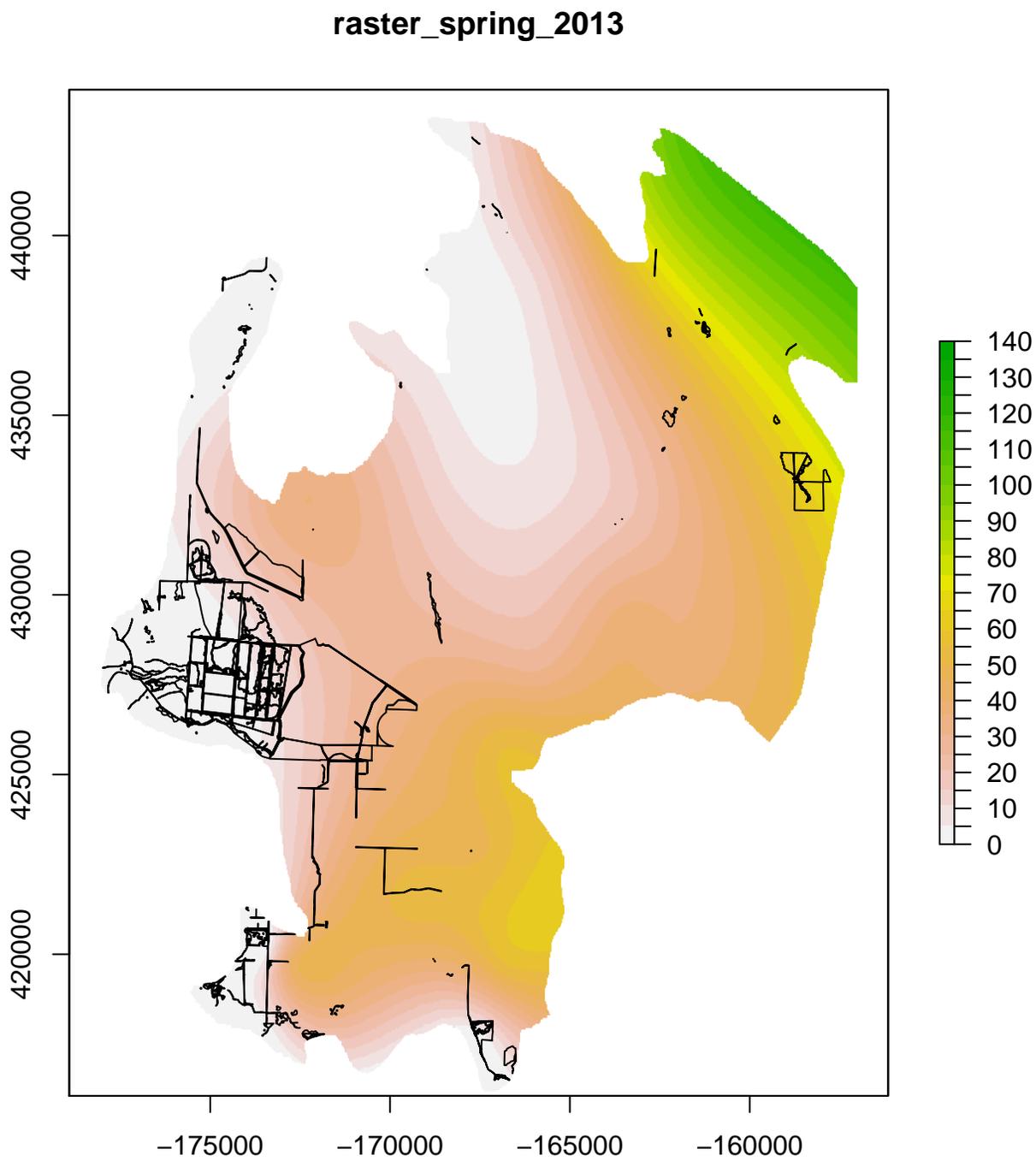


Figure 17: Depth to water, in feet below ground surface.

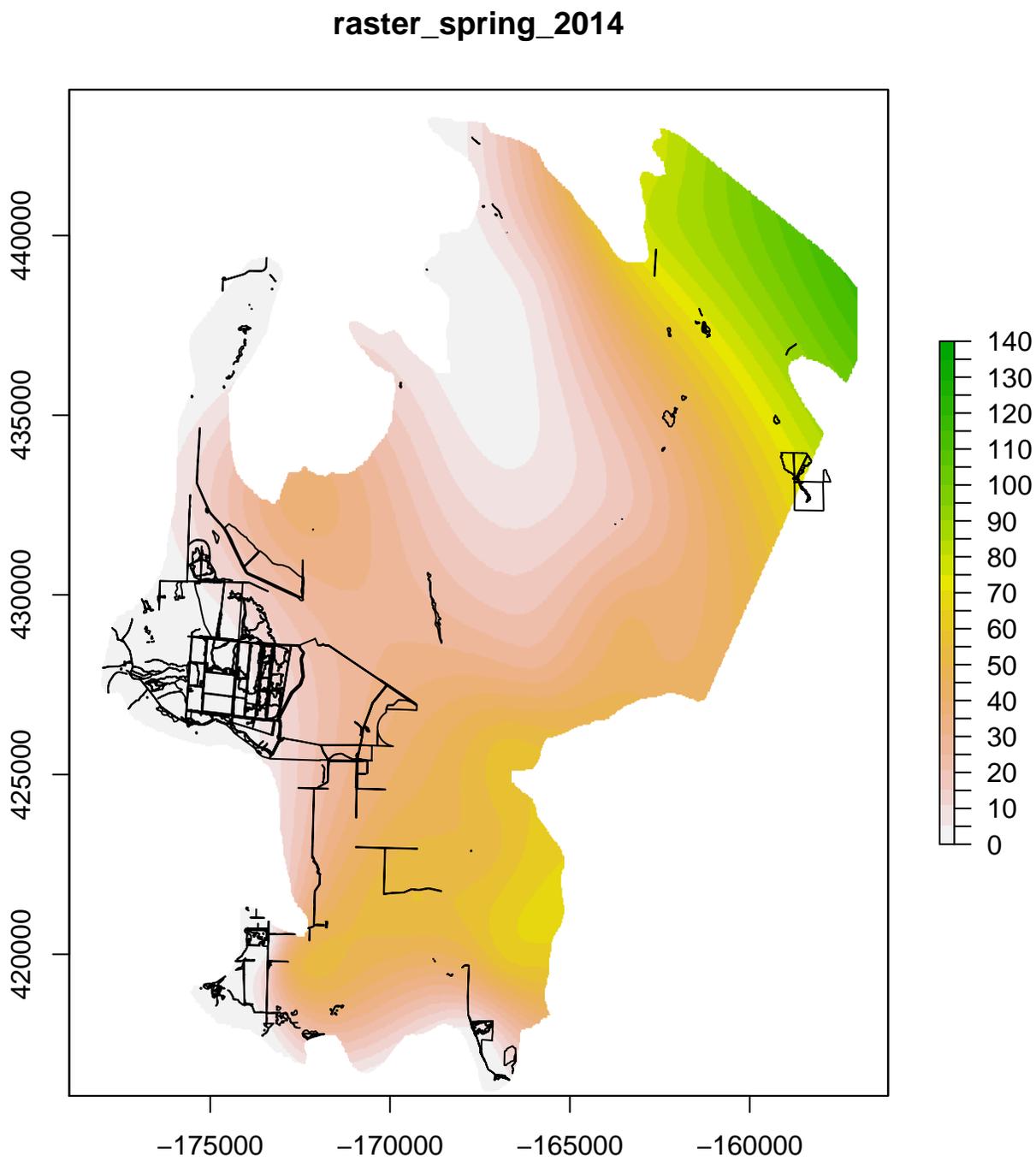


Figure 18: Depth to water, in feet below ground surface.

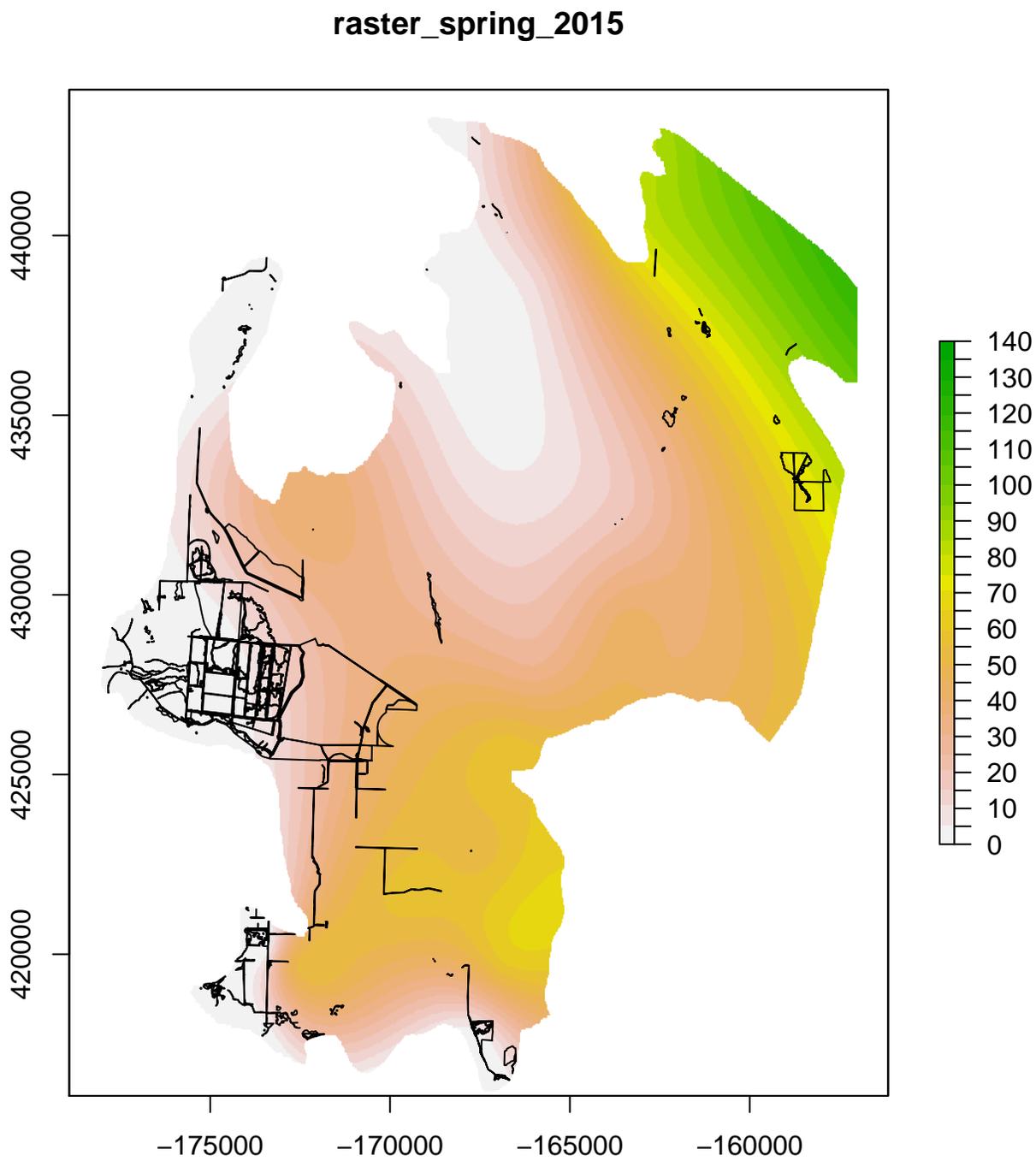


Figure 19: Depth to water, in feet below ground surface.

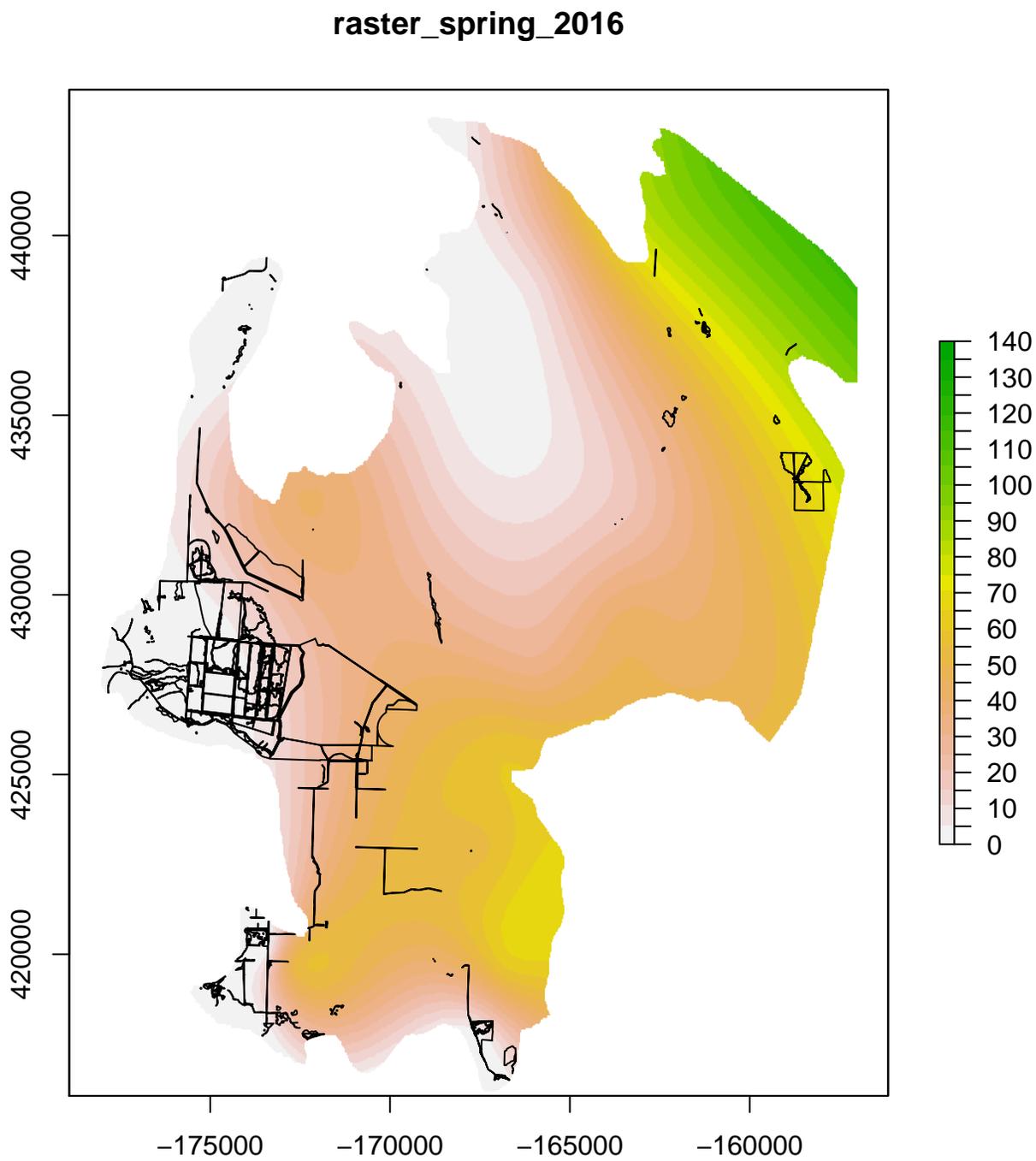


Figure 20: Depth to water, in feet below ground surface.

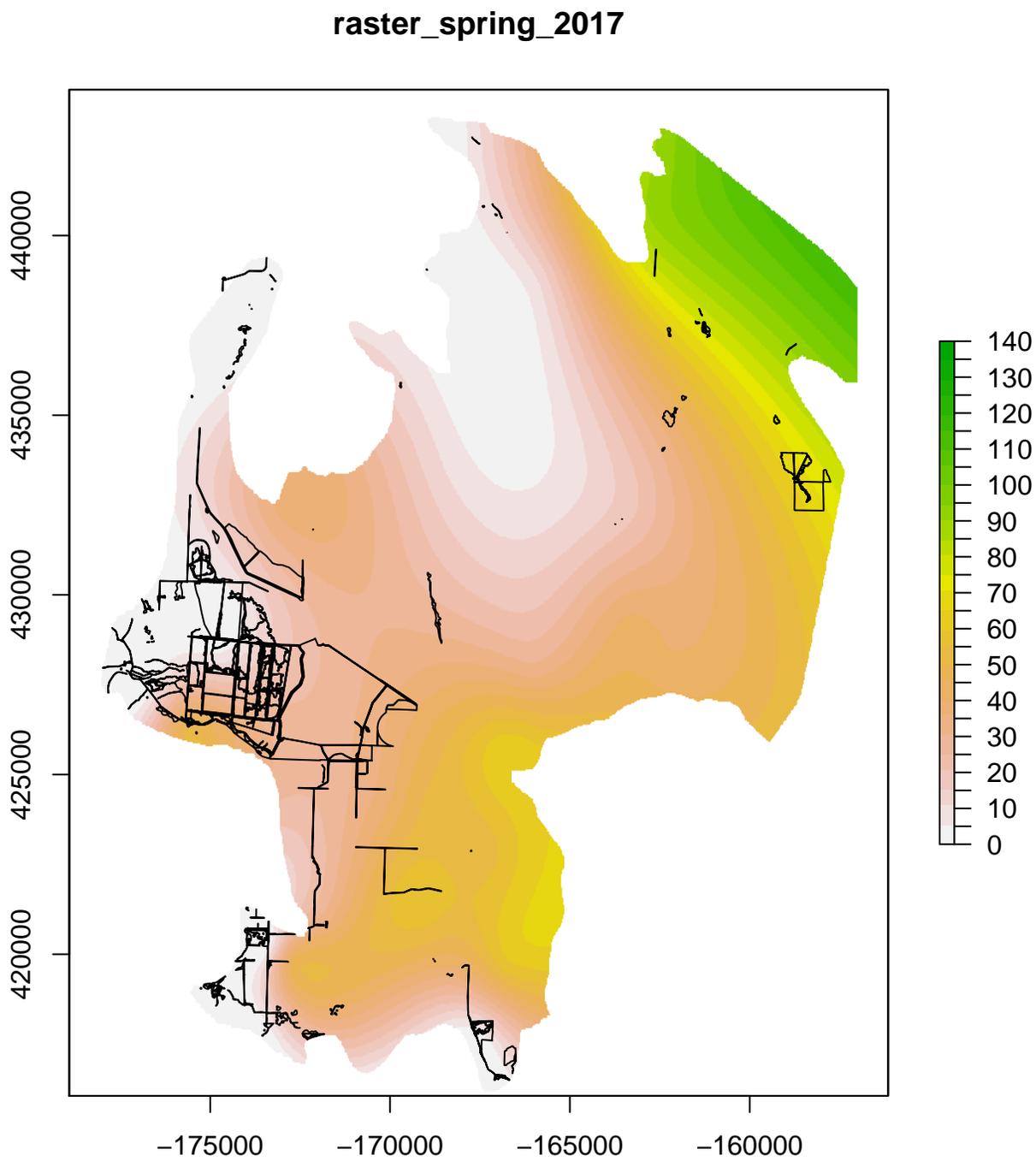


Figure 21: Depth to water, in feet below ground surface.

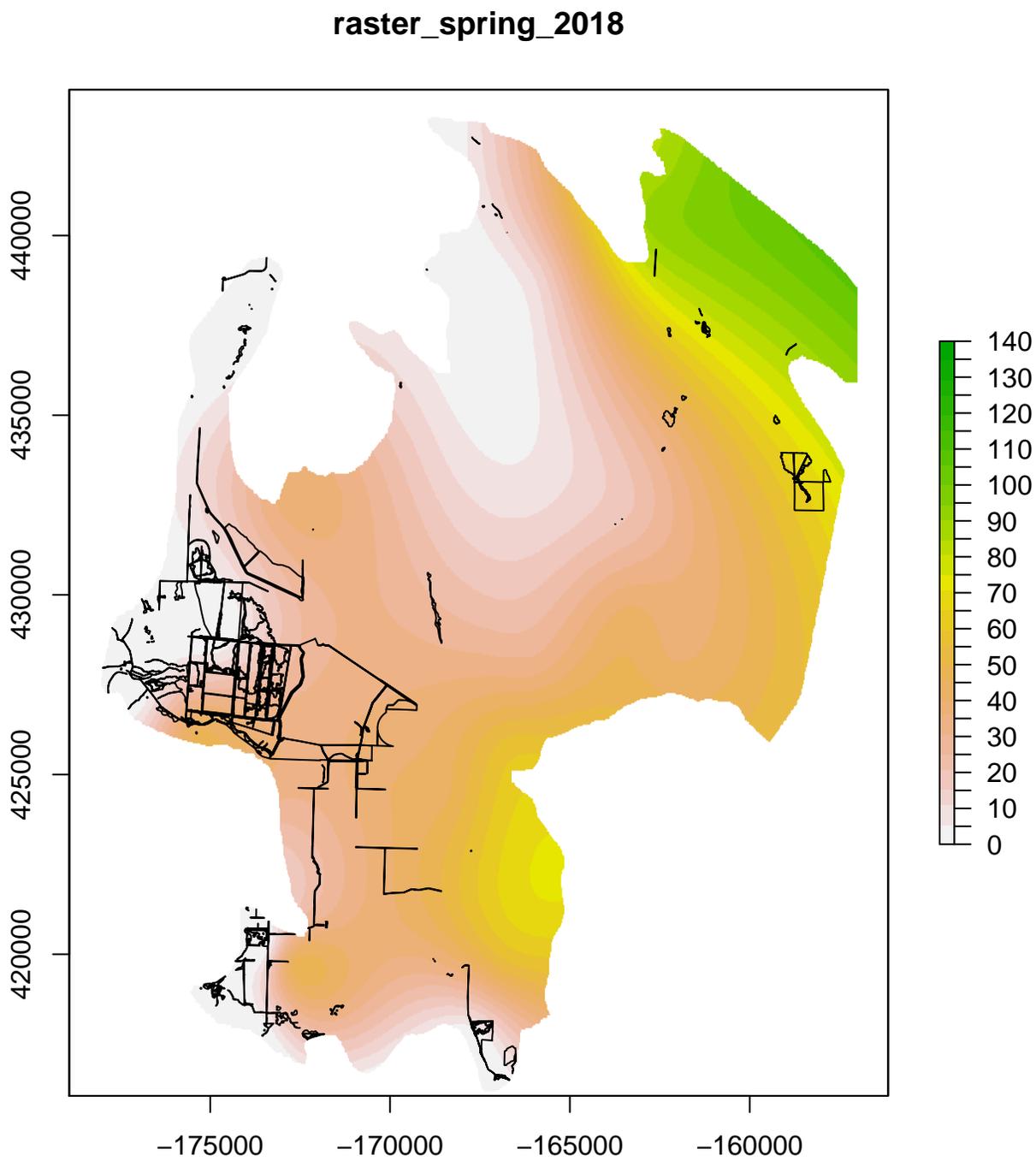


Figure 22: Depth to water, in feet below ground surface.

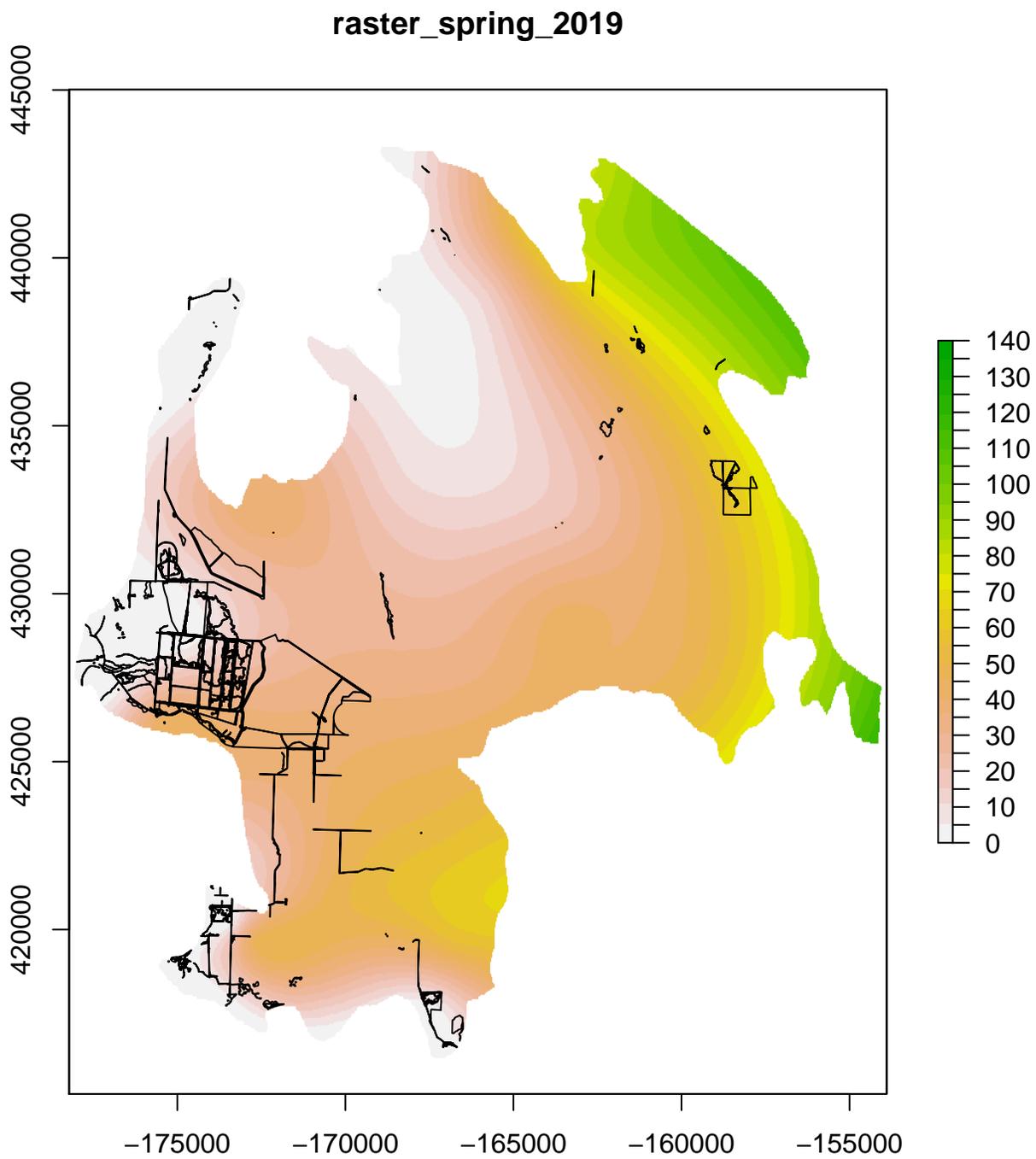


Figure 23: Depth to water, in feet below ground surface.

## References