US Army Corps of Engineers
BUILDING STRONG®

LRH 2011-646-OHR

Posted 4/3/2014

ATTACHMENTS

LRH 2011-646-OHR

TO WHOM IT MAY CONCERN: The following application has been submitted for a Department of the Army Permit under the provisions of Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. This notice serves as the United States Army Corps of Engineers' (Corps) request to the Ohio Environmental Protection Agency to act on Section 401 Water Quality Certification for the following application.

APPLICANT: Ohio Department of Transportation (ODOT)

1980 West Broad Street, Mail Stop 4170

Columbus, Ohio 43223

LOCATION: The applicant has submitted a proposal for construction of Phase 2 and Phase 3 of the Portsmouth Bypass Project in Scioto County, Ohio. Phase 2 is located in Valley, Jefferson, and Madison Townships; Phase 3 is located in Harrison and Porter Townships. Phase 2 would be 7.4 miles of new roadway to connect United States (U.S.) Route 23 just north of Lucasville to the previously authorized Phase 1 Lucasville-Minford Road interchange. Phase 3 would be 5.6 miles of new roadway to link the previously authorized Phase 1 Shumway Hollow Road interchange to U.S. 52 near Wheelersburg, Ohio.

Termini of the proposed Phase 2 alignment are as follows:

North terminus: Latitude 38.89644 North and Longitude 83.00214 West

South terminus: Latitude 38.86338 North and Longitude 82.89588 West

Termini of the proposed Phase 3 alignment are as follows:

North terminus: Latitude 38.83645 North and Longitude 82.85430 West

South terminus: Latitude 38.73905 North and Longitude 82.86663 West

Waters of the U.S. within the Phase 2 project area include 66 direct and indirect tributaries to the Scioto River or Little Scioto River, both of which are Section 10 and traditional navigable waters (TNWs) for 175 miles and 1.7 miles respectively, 17 jurisdictional wetlands, and one jurisdictional ditch. Waters of the U.S. within the Phase 3 project area include the Little Scioto River, 59 direct and indirect tributaries to the Little Scioto River or Ohio River (TNWs), 20 jurisdictional wetlands, two jurisdictional ditches, and two jurisdictional ponds.

DESCRIPTION OF PROPOSED WORK: The applicant proposes to discharge fill material into waters of the U.S. to construct, over a period of five years, approximately thirteen miles of limited access highway on a new alignment. The applicant has indicated discharges of fill material into 126 streams, 37 wetlands, three ditches, and two ponds are necessary to achieve the desired elevations for the highway, to construct bridges, to install new culverts at stream crossings, and to replace culverts where appropriate. The Corps anticipates the proposal consists of multiple single and completed projects. The Corps intends to review the various single and complete projects under one permit evaluation.

Under their Preferred Alternative, the applicant proposes to permanently discharge fill material into a total of 6,039 linear feet (lf) of perennial streams, 33,003 lf of intermittent streams, 28,493 lf of ephemeral streams, 6.54 acres (ac) of jurisdictional wetlands, 0.07-ac of jurisdictional ditches, and 1.04 ac of jurisdictional ponds. In addition, the applicant proposes temporary discharges of fill material into 1,400 lf of streams for construction access and dewatering.

The typical 4-lane roadway section would consist of two lanes in each direction that would be 12 feet wide and include a 22-foot wide median with concrete barrier and 10-foot wide shoulders. Phases 2 and 3 would include the construction of 9 bridges, 3 full interchanges, 1 partial interchange, and local road improvements. New bridges are proposed at U.S. 23, Flatwood-Fallen Timber Road, Morris Lane Blue Run Road, Blue Run Road, and Lucasville-Minford Road, SR 335 at the Little Scioto River, the CSX Railroad near Slocum Avenue, SR 140, and U.S. 52. Full interchanges are proposed at U.S. 23, Lucasville-Minford Road, and U.S. 52. A partial interchange is proposed at SR 140. See the attached Tables 1-3 for summaries of proposed discharges. Maps of the proposal are also attached to this public notice.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA): The Federal Highway Administration (FHWA) is the lead Federal agency for this project. On August 10, 2005 the FHWA approved the SR 823, Portsmouth Bypass Project, Final Environmental Impact Statement (EIS). The Corps procedures for implementing NEPA (30 CFR 230) allows the Corps, Huntington District Commander to adopt another agency's NEPA document to support Corps' decisions if it that document is found to be technically and procedurally adequate per Corps regulations. The Corps has reviewed FHWA's EIS. To the extent possible, the Corps will either: adopt the EIS, tier off the EIS, or prepare a supplemental EA to fulfill any NEPA responsibilities associated with our permit action.

ALTERNATIVES ANALYSIS: The various single and complete projects do not require access to or siting within special aquatic sites to fulfill their basic purpose and are considered non-water dependent activities. The Section 404(b)(1) Guidelines state for non-water dependent activities, practicable alternatives that do not involve wetlands are presumed to be available, unless clearly demonstrated otherwise. The applicant is required to provide an alternatives analysis that must overcome the presumption prior to receiving authorization for the discharge of fill material. The applicant has submitted an alternatives analysis that is currently under review.

The alternatives described in the Final EIS include a Preferred Alternative, a Minimal Degradation Alternative, and a Non-Degradation Alternative. The applicant's Preferred Alternative described above is a modified version of the "Hill Alignment" from the EIS. The discharge of fill material into waters of the U.S. under the Minimal Degradation Alternative would be reduced from the Preferred Alternative by avoiding approximately 23,908 lf of streams and 2.56 ac of wetlands. This would be accomplished by constructing 25 additional bridges at various locations along the proposed mainline and interchange ramps. The Non-Degradation Alternative is a "no build" alternative. Under the Non-

Degradation Alternative, no discharge of fill material into waters of the U.S. would occur. The applicant has indicated the Non-Degradation Alternative would not meet the project purpose.

A complete copy of the alternatives analysis can be reviewed, by appointment, at the location described at the beginning of this Public Notice. No permit would be issued until our review of the alternatives analysis clearly demonstrates that practicable upland alternatives are not available to achieve the overall project purpose.

AVOIDANCE AND MINIMIZATION: If a project area includes waters of the U.S., consideration must be given to avoidance of waters of the U.S. If waters of the U.S. cannot be avoided, the discharge of fill material into waters of the U.S. must be minimized. A total of approximately 5,459 lf of perennial streams, 35,020 lf of intermittent streams, 29,590 lf of ephemeral streams, 10.55 ac of wetlands, 0.07-ac of jurisdictional ditches, and 1.14 ac of jurisdictional ponds subject to Corps jurisdiction exist within the alignments for Phases 2 and 3. According to the applicant, alternatives were considered as described above, and avoidance and minimization efforts were incorporated into this proposal.

To the extent practicable, the applicant's Preferred Alternative includes the use of oversized culverts, adjustments in the alignment to allow for perpendicular stream crossings, and avoidance of lateral stream encroachments. In addition, the proposed median width was reduced from 60 feet to 22 feet to minimize the overall project footprint. To avoid the discharge of fill material into the Little Scioto River, a high quality resource, the piers for the proposed bridge over the river were relocated above the ordinary high water mark of this high quality resource.

If a permit were issued, avoidance of high quality aquatic resources would be accomplished through the designation of no-build zones within the proposed construction limits. Minimization of adverse effects to aquatic resources would also be achieved through adherence to the applicant's *Construction and Material Specifications* and the implementation of construction Best Management Practices for sediment and erosion control. Such measures may include the installation of silt barriers, silt fence, ditch checks, and temporary sediment basins or other retention structures appropriately placed prior to construction.

COMPENSATORY MITIGATION PLAN: To compensate for the discharge of fill material into 66,219 lf of streams within the Scioto River, Little Scioto River and Ohio River watersheds, the applicant proposes to preserve 36,029 lf of high quality headwater streams and riparian buffers in the Lower Scioto River (05060002) watershed at the General Electric Test Operations Facility in the Village of Peebles, Adams County, Ohio. The Ohio Department of Natural Resources would be the third party easement holder for long-term protection.

The applicant is also exploring an opportunity, with a qualified third party, to secure additional stream mitigation credit within the Lower Scioto River and Little Scioto-Tygart (05090103) watersheds. ODOT would provide a minimum of 65,296 lf of additional stream mitigation credit, of which 70% (45,707 lf) would be stream preservation and 30% (19,589 lf) would be stream restoration.

To compensate for the discharge of fill material into 6.54 ac of wetlands, the applicant proposes to preserve 2.52 ac of high quality wetlands in Green Township, Ross County, Ohio. The preservation wetlands are located in the Lower Scioto River (05060002) watershed on a 51-acre tract identified as the Rupiper Property, which would be protected in perpetuity through an agreement with the Ross County Park District. In addition, the applicant proposes to purchase a minimum of 11.44 ac of

wetland mitigation credits at the Red Stone Farm Wetland Mitigation Bank in the adjacent Ohio Brush-White Oak (05090201) watershed in Perry Township, Pike County, Ohio.

The applicant's proposed compensatory mitigation plan is open to comment and is subject to change based on comments received. After review of all submitted information, the Corps will make a determination of appropriate mitigation, in the event a decision is made to issue a permit.

WATER QUALITY CERTIFICATION: A Section 401 Water Quality Certification is required for this project. It is the applicant's responsibility to obtain certification from the Ohio Environmental Protection Agency.

HISTORIC AND CULTURAL RESOURCES: FHWA is the lead Federal agency for this project and is responsible for compliance with the Section 106 of the National Historic Preservation Act. The applicant completed reports titled *Phase I Archaeological Reconnaissance Survey for the Proposed Portsmouth Bypass (SCI-823-0.00 [PID 19415] in Porter, Harrison, Madison, Jefferson and Valley Townships, Scioto County, Ohio* and *Phase II History/Architecture Evaluation of 532 Fairground Road (SCI-600-03) for the Proposed Portsmouth Bypass (SCI-823-0.00; PID 19415) in Porter, Harrison, Madison, Jefferson and Valley Townships, Scioto County, Ohio*. The Ohio State Historic Preservation Office concurred with the findings of these reports on October 28, 2004 and December 3, 2004, respectively. The applicant completed additional field work on March 14, 2006 in response to adjustments to the proposed construction limits. No new archaeological sites were identified.

The applicant completed a *Phase I History/Architecture Reevaluation Survey for Phases 2 & 3 of the SCI-823 Portsmouth Bypass project (SCI-823-0.00; PID: 19415) in Harrison, Jefferson, Madison, Porter, and Valley Townships, Scioto County, Ohio*, dated March 21, 2013. The applicant determined, on behalf of FHWA, the subject undertaking would have no adverse effect on any historic property. In support of our independent permit decision, the Corps intends to rely upon the information collected and the consultation performed on behalf of FHWA regarding the effects to historic properties. A copy of this Public Notice will be sent to the Ohio State Historic Preservation Office for their review. Comments concerning archaeological sensitivity of a project area should be based upon collected data.

THREATENED AND ENDANGERED SPECIES: The proposed project is located within the known or historic range of the following endangered (E), proposed endangered (PE), or threatened (T) species:

- Fanshell mussel (*Cyprogenia stegaria*) (E)
- Pink mucket pearly mussel (*Lampsilis abrupta*) (E)
- Running buffalo clover (*Trifolium stoloniferum*) (E)
- Clubshell mussel (*Pleurobema clava*) (E)
- Sheepnose mussel (*Plethobasus cyphyus*) (E)
- Snuffbox mussel (*Epioblasma triquetra*) (E)
- Rayed bean mussel (*Villosa fabalis*) (E)

- Indiana bat (*Myotis sodalis*) (E)
- Northern riffleshell mussel (*Epioblasma torulosa rangiana*) (E)
- Northern long-eared bat (*Myotis septentrionalis*) (PE)
- Small whorled pogonia (*Isotria medeoloides*) (T)
- Virginia spiraea (*Spiraea virginiana*) (T)

FHWA is responsible for compliance with Section 7 of the Endangered Species Act. The applicant determined the project may affect, but is not likely to adversely affect the Indiana bat, rayed bean mussel, running buffalo clover, small whorled pogonia, and Virginia spiraea. By letters dated March 12, 2012 and September 12, 2013, United States Fish and Wildlife Service (USFWS) concurred with these determinations. The applicant has agreed to conduct tree cutting during the Indiana bat's hibernation period (prior to April 1 and after September 30). The applicant has determined the project would not affect any other federally listed mussels or their habitats. The applicant has initiated a Biological Assessment for the Northern long-eared bat, which will be coordinated with the USFWS upon completion.

In support of our independent permit decision, the Corps intends to rely upon the information collected by or on behalf of the FHWA, and consultation performed by or on behalf of FHWA, regarding the effects to threatened or endangered species.

PUBLIC INTEREST REVIEW AND CUMULATIVE EFFECTS: This application will be reviewed in accordance with 33 CFR 320−332, the Regulatory Program of the Corps, and other pertinent laws, regulations, and executive orders. Our evaluation will also follow the guidelines published by the United States Environmental Protection Agency pursuant to Section 404(b) (1) of the Clean Water Act (40 CFR part 230). The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity, on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered including the cumulative effects thereof; among those factors are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. A permit will be granted unless its issuance is found to be contrary to the public interest.

SOLICITATION OF COMMENTS: The Corps is soliciting comments from the public, Federal, state and local agencies and officials, Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. For accuracy and completeness of the administrative record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. Any person may request, in writing, within the comment period specified in the notice,

that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. The Corps reviewed the FHWA EIS. To the extent possible, the Corps will either: adopt the EIS, tier off the EIS, or prepare a supplemental EA to fulfill any NEPA responsibilities associated with our permit action. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. Written statements received in this office on or before the expiration date of this Public Notice will become a part of the record and will be considered in the final determination.

CLOSE OF COMMENT PERIOD: All comments pertaining to this Public Notice must reach this office on or before the close of the comment period listed on page one of this Public Notice.

If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to:

U.S. Army Corps of Engineers, Huntington District

ATTN: CELRH-RD-S-OT Public Notice No. LRH-2011-00646-OHR

Building 10 / Section 10

PO Box 3990

Columbus, OH 43218-3990

Please note names and addresses of those who submit comments in response to this Public Notice become part of our administrative record and, as such, may be available to the public under provisions of the Freedom of Information Act. Thank you for your interest in our nation's water resources. If you have any questions concerning this Public Notice, please contact Brett Latta of the South/Transportation Branch, at (614) 692-4654, by mail at the above address, or by email at Brett.C.Latta@usace.army.mil.

The following document is not readable via Optical Character Recognition. For more information or if you require the document to be read aloud please call: 304-399-5353

Table 1. Discharge Quantities – Streams
Proposed Portsmouth Bypass Project Phases 2-3, PID 19415 (2011-00646-OHR)

Project #	Plan Sheet Page(s)	Resource ID	Description of Impacts	Total Length in Project Area	Flow Regime[1]	Temporary Discharge Below Ordinary High Water Mark (OHWM)			Total Permanent Discharge Below OHWM*		
						Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)
1[2]	2-3	Stream 1	CULVERT/ FILL	2,190	I	10	0.001	0.56	2,187	0.153	121
2[2]	3	Stream 2	CULVERT	1,479	I	10	0.001	0.56	1,472	0.121	149
3[2]	3,5	Stream 3	CULVERT	1,100	I	10	0.002	1.30	1,098	0.263	485
4[2]	4	Stream 4	FILL	341	I	10	0.002	1.85	341	0.078	63
5[2]	6	Stream 5	CULVERT	600	PI	10	0.002	2.96	469	0.119	126
5[2]	6	Stream 5A	FILL	237	I	10	0.001	0.56	237	0.016	13
5[2]	6	Stream 5B	FILL	249	E	10	0.001	0.56	249	0.017	14
5[2]	6	Stream 5C	FILL	153	E	10	0.000	0.37	153	0.007	6
6[2]	7	Stream 6	CULVERT	862	PI	10	0.002	2.59	731	0.199	224
6[2]	7	Stream 6A	CULVERT	623	I	10	0.002	2.59	620	0.128	141
6[2]	7	Stream 6B	FILL	927	I	10	0.002	2.59	689	0.149	179
6[2]	7	Stream 6B1	FILL	198	E	10	0.001	0.56	198	0.014	11
6[2]	7	Stream 6B2	FILL	297	E	10	0.001	0.83	294	0.020	25
7[2]	9	Stream 7	CULVERT	441	I	10	0.001	0.93	441	0.062	32
8[2]	9	Stream 8	CULVERT	1,177	I	10	0.001	0.93	1,170	0.173	125
9[2]	10-11	Stream 9	CULVERT	789	I	10	0.001	0.74	789	0.081	99
10[2]	12-13	Stream 10	CULVERT	1,025	I	10	0.001	0.74	1,020	0.105	93
10[2]	12	Stream 10A	CULVERT	229	E	10	0.001	0.74	229	0.030	49

Table 1. Discharge Quantities – Streams
Proposed Portsmouth Bypass Project Phases 2-3, PID 19415 (2011-00646-OHR)

Project #	Plan Sheet Page(s)	Resource ID	Description of Impacts	Total Length in Project Area	Flow Regime[1]	Temporary Discharge Below Ordinary High Water Mark (OHWM)			Total Permanent Discharge Below OHWM*		
						Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)
10[2]	12	Stream 10B	CULVERT	708	E	10	0.001	0.56	708	0.073	64
10[2]	12-13	Stream 10C	FILL	112	E	10	0.001	0.56	112	0.008	6
10[2]	12-13	Stream 10D	FILL	128	E	10	0.001	0.74	128	0.012	9
11[2]	13-14	Stream 11	CULVERT	1,082	I	10	0.002	2.96	1,050	0.226	279
11[2]	13	Stream 11A	FILL	606	E	10	0.001	0.74	606	0.056	45
11[2]	13	Stream 11B	FILL	379	E	10	0.001	0.56	379	0.026	21
11[2]	13	Stream 11C	FILL	431	E	10	0.001	0.56	431	0.030	24
11[2]	13	Stream 11D	FILL	580	E	10	0.001	0.56	570	0.039	32
11[2]	13	Stream 11E	FILL	324	E	10	0.001	0.74	317	0.029	23
11[2]	13	Stream 11F	FILL	757	E	10	0.001	0.56	742	0.051	41
12[2]	14	Stream 12	FILL	696	I	10	0.001	1.48	671	0.062	99
13[2]	14	Stream 13	FILL	628	E	10	0.002	1.30	624	0.100	81
14[2]	14	Stream 14	FILL	706	E	10	0.001	0.56	697	0.048	39
15[2]	15-16	Stream 15	FILL	1,040	E	10	0.001	0.74	1,040	0.096	77
15[2]	15	Stream 15A	FILL	339	E	10	0.001	0.74	330	0.030	24
15[2]	15-16	Stream 15B	FILL	317	E	10	0.001	0.56	317	0.022	18
16[2]	15	Stream 16	CULVERT	1,042	I	10	0.001	0.93	1,042	0.127	128
16[2]	15	Stream 16A	FILL	310	E	10	0.001	0.56	310	0.021	17
17[2]	16	Stream 17	CULVERT	1,046	I	10	0.001	1.67	1,018	0.160	185

Table 1. Discharge Quantities – Streams
Proposed Portsmouth Bypass Project Phases 2-3, PID 19415 (2011-00646-OHR)

Project #	Plan Sheet Page(s)	Resource ID	Description of Impacts	Total Length in Project Area	Flow Regime[1]	Temporary Discharge Below Ordinary High Water Mark (OHWM)			Total Permanent Discharge Below OHWM*		
						Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)
17[2]	16	Stream 17A	FILL	122	E	10	0.001	0.56	91	0.006	5
17[2]	16	Stream 17B	CULVERT	870	E	10	0.001	0.74	783	0.082	82
17[2]	16	Stream 17C	FILL	553	E	10	0.001	1.11	551	0.051	61
17[2]	16	Stream 17C1	FILL	130	E	10	0.001	0.56	130	0.009	7
18[2]	17	Stream 18	FILL	716	E	10	0.001	1.11	712	0.098	79
18[2]	17	Stream 18A	FILL	79	E	10	0.000	0.37	79	0.004	3
18[2]	17	Stream 18B	FILL	172	E	10	0.001	0.56	172	0.012	10
19[2]	17	Stream 19	CULVERT	940	E	10	0.001	0.93	917	0.113	129
19[2]	17	Stream 19A	FILL	210	E	10	0.000	0.37	210	0.010	8
19[2]	17	Stream 19B	FILL	665	E	10	0.001	0.56	631	0.043	35
20[2]	18	Stream 20	CULVERT	1,014	I	10	0.001	0.74	1,014	0.134	108
20[2]	18	Stream 20-1	FILL	204	E	10	0.001	0.56	204	0.014	11
21[2]	18-19	Stream 21	FILL	717	E	10	0.002	1.30	717	0.115	93
21[2]	18	Stream 21A	FILL	102	E	10	0.001	0.56	102	0.007	6
22[2]	19	Stream 22	CULVERT	913	I	10	0.002	1.85	913	0.223	193
22[2]	19	Stream 22A	FILL	710	E	10	0.001	0.74	710	0.065	53
22[2]	19	Stream 22B	FILL	191	E	10	0.001	0.56	189	0.013	11
22[2]	19	Stream 22C	FILL	382	E	10	0.001	0.56	382	0.026	21
23[2]	20	Stream 23	CULVERT	863	I	10	0.002	1.94	863	0.148	182

Table 1. Discharge Quantities – Streams
Proposed Portsmouth Bypass Project Phases 2-3, PID 19415 (2011-00646-OHR)

Project #	Plan Sheet Page(s)	Resource ID	Description of Impacts	Total Length in Project Area	Flow Regime[1]	Temporary Discharge Below Ordinary High Water Mark (OHWM)			Total Permanent Discharge Below OHWM*		
						Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)
23[2]	20	Stream 23A	FILL	467	E	10	0.001	0.74	467	0.043	35
23[2]	20	Stream 23B	FILL	232	E	10	0.001	0.56	231	0.016	13
24[2]	20	Stream 24	CULVERT	775	E	10	0.002	1.94	775	0.150	132
24[2]	20	Stream 24A	FILL	142	E	10	0.000	0.37	66	0.003	2
25[2]	21	Stream 25	CULVERT	298	I	10	0.000	0.56	298	0.021	25
26[2]	21	Stream 26	CULVERT	934	I	10	0.000	0.37	934	0.071	58
26[2]	21	Stream 26A	FILL	474	E	10	0.000	0.37	472	0.022	17
27[2]	22-23	Stream 27	FILL	1,227	I	10	0.002	2.22	727	0.134	162
27[2]	23	Stream 27B	FILL	655	I	10	0.001	0.56	652	0.045	36
28[2]	24	Stream 28	FILL	231	E	10	0.001	0.74	231	0.021	17
29[3]	25	Stream 29	CULVERT	718	PI	10	0.004	5.93	564	0.350	583
30[3]	26	Stream 30	CULVERT	444	E	10	0.002	1.48	440	0.082	62
31[3]	26	Stream 31	CULVERT	511	E	10	0.002	1.67	511	0.120	81
31[3]	26	Stream 31A	FILL	189	E	10	0.002	1.48	189	0.035	28
32[3]	26	Stream 32	CULVERT	830	I	10	0.001	1.11	830	0.081	102
32[3]	26	Stream 32A	FILL	160	E	10	0.001	0.93	160	0.019	14
32[3]	26	Stream 32B	FILL	142	E	10	0.000	0.37	142	0.008	5
32[3]	26	Stream 32C	FILL	186	E	10	0.001	0.56	186	0.014	10
32[3]	26	Stream 32D	FILL	245	E	10	0.000	0.37	245	0.011	9

Table 1. Discharge Quantities – Streams
Proposed Portsmouth Bypass Project Phases 2-3, PID 19415 (2011-00646-OHR)

Project #	Plan Sheet Page(s)	Resource ID	Description of Impacts	Total Length in Project Area	Flow Regime[1]	Temporary Discharge Below Ordinary High Water Mark (OHWM)			Total Permanent Discharge Below OHWM*		
						Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)
32[3]	26	Stream 32D1	FILL	246	E	10	0.000	0.37	245	0.011	9
33[3]	27	Stream 33	CULVERT	1,000	I	10	0.003	2.04	999	0.307	267
33[3]	26	Stream 33A	FILL	145	E	10	0.001	0.93	145	0.017	13
33[3]	26	Stream 33A1	FILL	3	E	10	0.001	0.93	3	0.000	0
33[3]	26	Stream 33A2	FILL	106	E	10	0.001	0.56	106	0.007	6
33[3]	27	Stream 33B	FILL	41	E	10	0.001	0.56	41	0.003	2
34[3]	27-28	Stream 34	CULVERT	2,420	PI	10	0.007	11.11	2,084	1.753	2,719
34[3]	27-28	Stream 34A	CULVERT	405	I	10	0.003	2.04	405	0.102	83
34[3]	28	Stream 34B	FILL	391	E	10	0.001	0.56	391	0.027	22
34[3]	28	Stream 34B1	FILL	348	E	10	0.000	0.19	348	0.008	6
34[3]	28	Stream 34B2	FILL	309	E	10	0.000	0.37	309	0.014	11
35[3]	29	Stream 35A	FILL	439	E	10	0.001	0.93	435	0.050	40
35[3]	29	Stream 35A1	FILL	111	E	10	0.000	0.19	111	0.003	2
36[3]	31	Stream 36	CULVERT	1,054	I	10	0.003	3.61	1,054	0.355	581
36[3]	30-31	Stream 36A	FILL	1,233	E	10	0.001	0.74	1,233	0.113	91
36[3]	31	Stream 36A1	FILL	86	E	10	0.000	0.19	86	0.002	2
36[3]	31	Stream 36C	CULVERT	1,146	I	10	0.001	1.11	1,146	0.211	171
36[3]	32	Stream 36C2	FILL	386	E	10	0.001	0.93	386	0.044	36
36[3]	32	Stream 36C3	FILL	184	E	10	0.001	0.93	184	0.021	17

Table 1. Discharge Quantities – Streams
Proposed Portsmouth Bypass Project Phases 2-3, PID 19415 (2011-00646-OHR)

Project #	Plan Sheet Page(s)	Resource ID	Description of Impacts	Total Length in Project Area	Flow Regime[1]	Temporary Discharge Below Ordinary High Water Mark (OHWM)			Total Permanent Discharge Below OHWM*		
						Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)
36[3]	31	Stream 36C4	FILL	41	E	10	0.000	0.37	41	0.002	2
37[3]	33	Stream 37	CULVERT	691	I	10	0.001	1.48	691	0.114	80
37[3]	32-33	Stream 37A	FILL	549	E	10	0.001	0.74	549	0.050	41
38[3]	34	Stream 38	CULVERT	1,604	I	10	0.002	3.33	1,600	0.340	526
38[3]	33-34	Stream 38A	FILL	1,755	I	10	0.001	1.39	1,755	0.201	244
38[3]	33	Stream 38A1	FILL	247	E	10	0.000	0.37	247	0.011	9
38[3]	33	Stream 38A2	FILL	72	E	10	0.000	0.37	72	0.003	3
38[3]	33	Stream 38A3	FILL	111	E	10	0.000	0.37	111	0.005	4
38[3]	33	Stream 38A4	FILL	161	E	10	0.001	0.74	161	0.015	12
38[3]	33	Stream 38A5	FILL	134	E	10	0.000	0.37	134	0.006	5
38[3]	33	Stream 38A6	FILL	107	E	10	0.000	0.19	107	0.002	2
38[3]	34	Stream 38B	CULVERT	681	E	10	0.002	1.30	681	0.131	116
38[3]	34	Stream 38B1	FILL	398	E	10	0.001	0.93	398	0.046	37
38[3]	35	Stream 38D	CULVERT	548	E	10	0.001	0.74	548	0.068	32
39[3]	36	Stream 39	FILL	1,095	I	10	0.002	1.94	1,095	0.176	213
39[3]	36	Stream 39A	FILL	925	E	10	0.000	0.37	925	0.042	34
39LSR[3]		Little Scioto River	BRIDGE	480	PS	150	0.276	3,258	0	0.000	0
40[3]	37	Stream 40	CULVERT	810	I	10	0.001	0.56	810	0.080	35

Table 1. Discharge Quantities – Streams
Proposed Portsmouth Bypass Project Phases 2-3, PID 19415 (2011-00646-OHR)

Project #	Plan Sheet Page(s)	Resource ID	Description of Impacts	Total Length in Project Area	Flow Regime[1]	Temporary Discharge Below Ordinary High Water Mark (OHWM)			Total Permanent Discharge Below OHWM*		
						Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)
40[3]	37	Stream 40A	FILL	188	E	10	0.000	0.37	188	0.009	7
40[3]	37	Stream 40B	FILL	183	E	10	0.000	0.19	183	0.004	3
41[3]	37	Stream 41	CULVERT	215	E	10	0.000	0.37	215	0.013	11
42[3]	38	Stream 42	FILL	513	E	10	0.001	0.56	510	0.035	28
42[3]	38-39	Stream 42A	FILL	147	E	10	0.000	0.19	142	0.003	3
43[3]	39-40	Stream 43	CULVERT	1,044	I	10	0.000	0.37	1,044	0.048	39
44[3]	40	Stream 44	CULVERT	1,436	I	10	0.003	3.33	1,436	0.410	442
45[3]	40	Stream 45	CULVERT	438	E	10	0.001	0.56	438	0.030	24
46[3]	40	Stream 46	CULVERT	1,231	PI	10	0.001	0.56	1,231	0.086	68
46[3]	40	Stream 46A	FILL	205	E	10	0.000	0.37	205	0.009	8
47[3]	41-42	Stream 47	FILL	470	I	10	0.001	0.74	470	0.043	35
48[3]	42-43	Stream 48	CULVERT	379	PS	10	0.005	7.41	271	0.206	38
48[3]	42	Stream 48A	FILL	247	E	10	0.000	0.37	247	0.011	9
49[3]	43	Stream 49	CULVERT	350	I	10	0.001	0.56	350	0.047	5
		Totals	**N/A**	**70,069**	**N/A**	**1,400**	**0.413**	**3,395**	**67,535^**	**10.663**	**11,848**

LF = linear feet; AC = acre(s); CY = cubic yards

[1] E – Ephemeral (29,590 feet), I – Intermittent (35,020 feet), PI – Perennial Interstitial (4,600), PS – Perennial Supraficial (859 feet)

* Due to overlap in material discharged and rounding, the sum of materials discharged may not equal totals reported.

^ 1,316 LF of stream is already within pre-existing culverts or pipes; the total length of streams requiring mitigation is 66,219 LF.

#[2], #[3] - Denotes Phase 2 or Phase 3 location

Table 2. Discharge Quantities – Wetlands
Proposed Portsmouth Bypass Project Phases 2-3, PID 19415 (2011-00646-OHR)

Wetlands						Total Permanent Discharge	
Project #	Plan Sheet Page(s)	Resource ID	Description of Impacts/ Activities	Total Acreage Within Project Area	Dominant Wetland Type	Area (AC)	Volume (CY)
1[2]	3	Wetland 1	FILL	4.546*	PEM/SS	1.007	1,625
2[2]	3	Wetland 2	FILL	0.270	PEM	0.270	428
2[2]	4-5	Wetland 3	FILL	0.610	PEM	0.610	984
6[2]	7	Wetland 4	FILL	0.019	PEM	0.019	31
6[2]	7	Wetland 5	FILL	0.038	PEM	0.038	61
5[2]	6	Wetland 6	FILL	0.003	PEM	0.003	5
1[2]	2	Wetland 7	FILL	0.195	PEM	0.195	315
2[2]	3	Wetland 9	FILL	0.237	PEM	0.237	382
5[2]	6	Wetland 10	FILL	0.028	PEM	0.028	45
6[2]	7	Wetland 11	FILL	0.018	PEM/SS	0.018	29
10[2]	12-13	Wetland 12	FILL	0.074	PEM/SS	0.074	119
16[2]	15	Wetland 13	FILL	0.013	PEM	0.013	21
16[2]	15	Wetland 14	FILL	0.004	PEM	0.004	6
20[2]	18	Wetland 15	FILL	0.012	PEM	0.012	5
20[2]	18	Wetland 16	FILL	0.051	PEM	0.051	82
26[2]	21	Wetland 17	FILL	0.041	PEM	0.041	54
27[2]	23	Wetland 18	FILL	0.827	PEM/SS/FO	0.827	1,334
32[3]	26	Wetland 20	FILL	0.064*	PEM/RAB	0.064	100
50[3]	29-30	Wetland 22	FILL	0.031	L2EM	0.031	50
50[3]	29-30	Wetland 23	FILL	0.010	PEM	0.010	16
39LSR[3]	36	Wetland 24	FILL	0.150*	PEM	0.053	86

Table 2. Discharge Quantities – Wetlands
Proposed Portsmouth Bypass Project Phases 2-3, PID 19415 (2011-00646-OHR)

Wetlands						Total Permanent Discharge	
Project #	Plan Sheet Page(s)	Resource ID	Description of Impacts/ Activities	Total Acreage Within Project Area	Dominant Wetland Type	Area (AC)	Volume (CY)
39LSR[3]	36	Wetland 24A	FILL	0.006	PEM	0.006	10
39LSR[3]	36	Wetland 24B	FILL	1.160*	PEM	0.780	1,258
40[3]	37	Wetland 25	FILL	0.206*	PEM/SS/FO	0.206	332
40[3]	37	Wetland 25A	FILL	0.041	PEM/SS	0.041	66
42[3]	39	Wetland 27	FILL	0.063	PEM	0.063	102
42[3]	38	Wetland 28A	FILL	0.009	PEM	0.009	15
42[3]	38-39	Wetland 28B	FILL	0.027	PEM	0.027	44
42[3]	38	Wetland 28C	FILL	0.031	PEM	0.031	50
42[3]	38	Wetland 28D	FILL	0.037	PEM	0.037	60
42[3]	38	Wetland 29	FILL	0.297	PEM	0.297	479
43[3]	40	Wetland 30	FILL	0.294	PEM	0.294	474
43[3]	40	Wetland 31	FILL	0.003	PEM	0.003	5
51[3]	43	Wetland 33	FILL	0.009	PEM	0.009	15
49[3]	43	Wetland 34	FILL	0.318	PEM/SS	0.318	513
52[3]	38	Wetland 35	FILL	0.801	PEM	0.801	1,292
42[3]	38	Wetland 36	FILL	0.011	PEM	0.011	18
		TOTALS	**N/A**	**10.554**	**N/A**	**6.538**	**10,511**

AC = acre(s); CY = cubic yards

Proposed Discharges: EM (includes PEM, RAB, L2EM) = 4.047 acres, PEM/SS = 1.458 acres, PEM/SS/FO = 1.033 acres

* Wetland extends beyond proposed construction limits

#[2], #[3] - Denotes Phase 2 or Phase 3 location

Table 3. Discharge Quantities – Other Waters
Proposed Portsmouth Bypass Project Phases 2-3, PID 19415 (2011-00646-OHR)

Other Waters					Total Permanent Discharge		
Project #	Plan Sheet Page(s)	Resource ID	Description of Impacts/ Activities below OHWM	Total Acreage Within Project Area	Length (LF)	Area (AC)	Volume (CY)
50[3]	29-30	Pond 1	FILL	0.141	N/A	0.141	1,365
51[3]	43	Pond 3	FILL	1.000*	N/A	0.900	8,712
		TOTALS	**N/A**	**1.141**	**N/A**	**1.041**	**10,077**
46[3]	40	PJD 1	FILL	0.015	254	0.015	29
49[3]	43	PJD 2	FILL	0.029	504	0.029	58
27[2]	23	PJD 3	FILL	0.023	405	0.023	47
		TOTALS	**N/A**	**0.067**	**1,163**	**0.067**	**134**

LF = linear feet; AC = acre(s); CY = cubic yards
* Pond extends beyond proposed construction limits
#[2], #[3] - Denotes Phase 2 or Phase 3 location

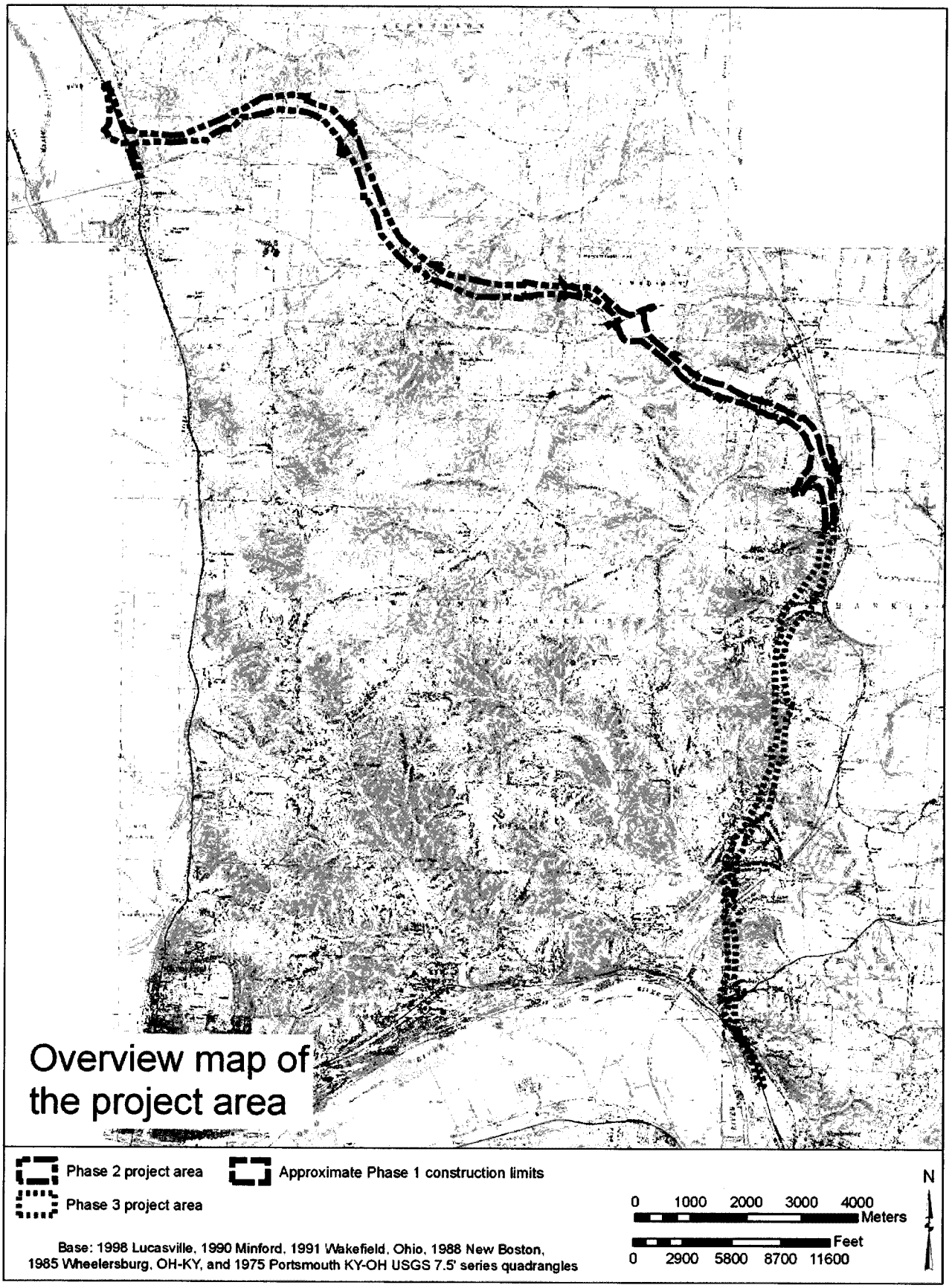

Figure 1. USGS 7.5' topographic maps.

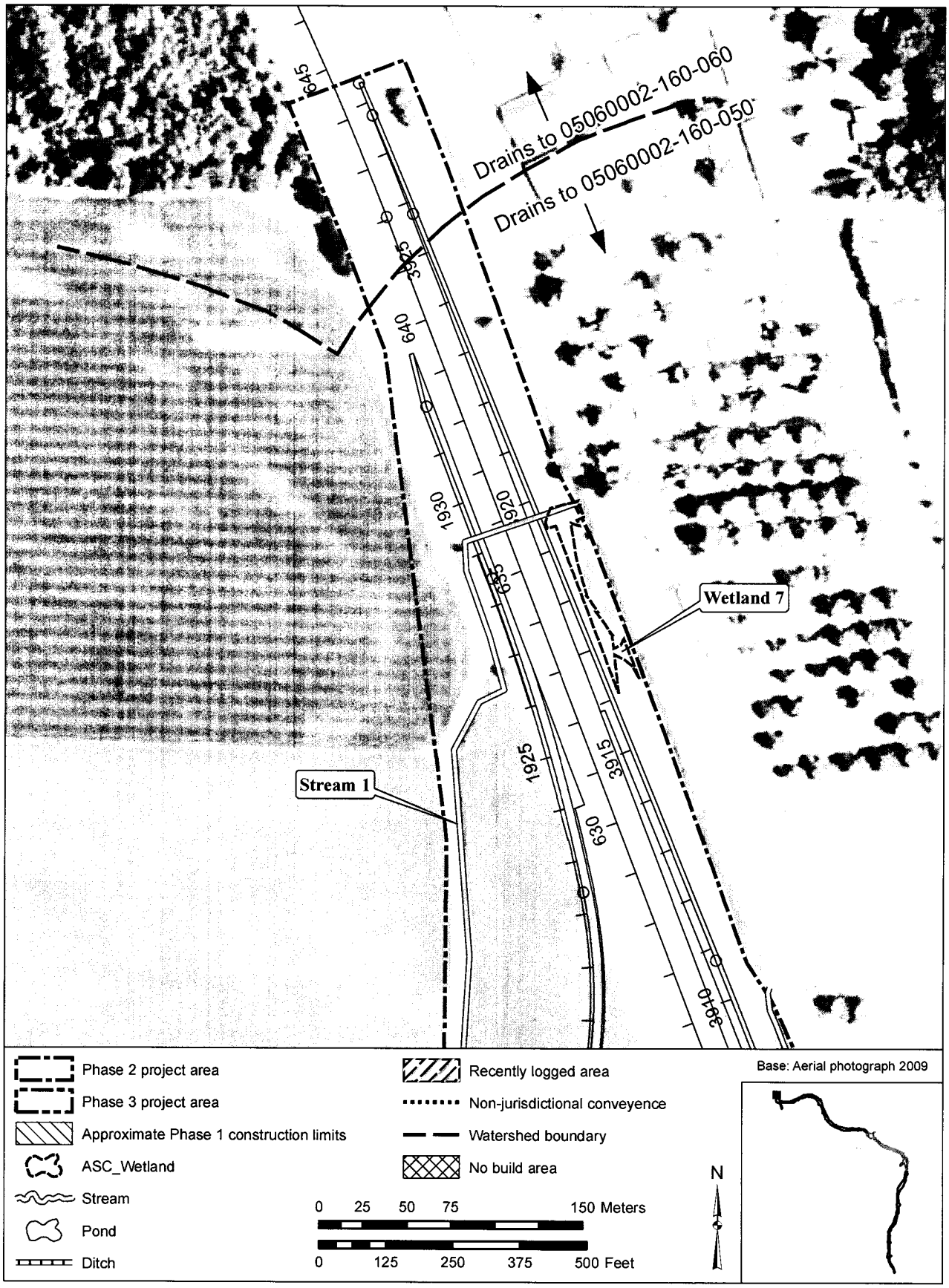

Figure 2. Survey results (Sheet 2 of 43)

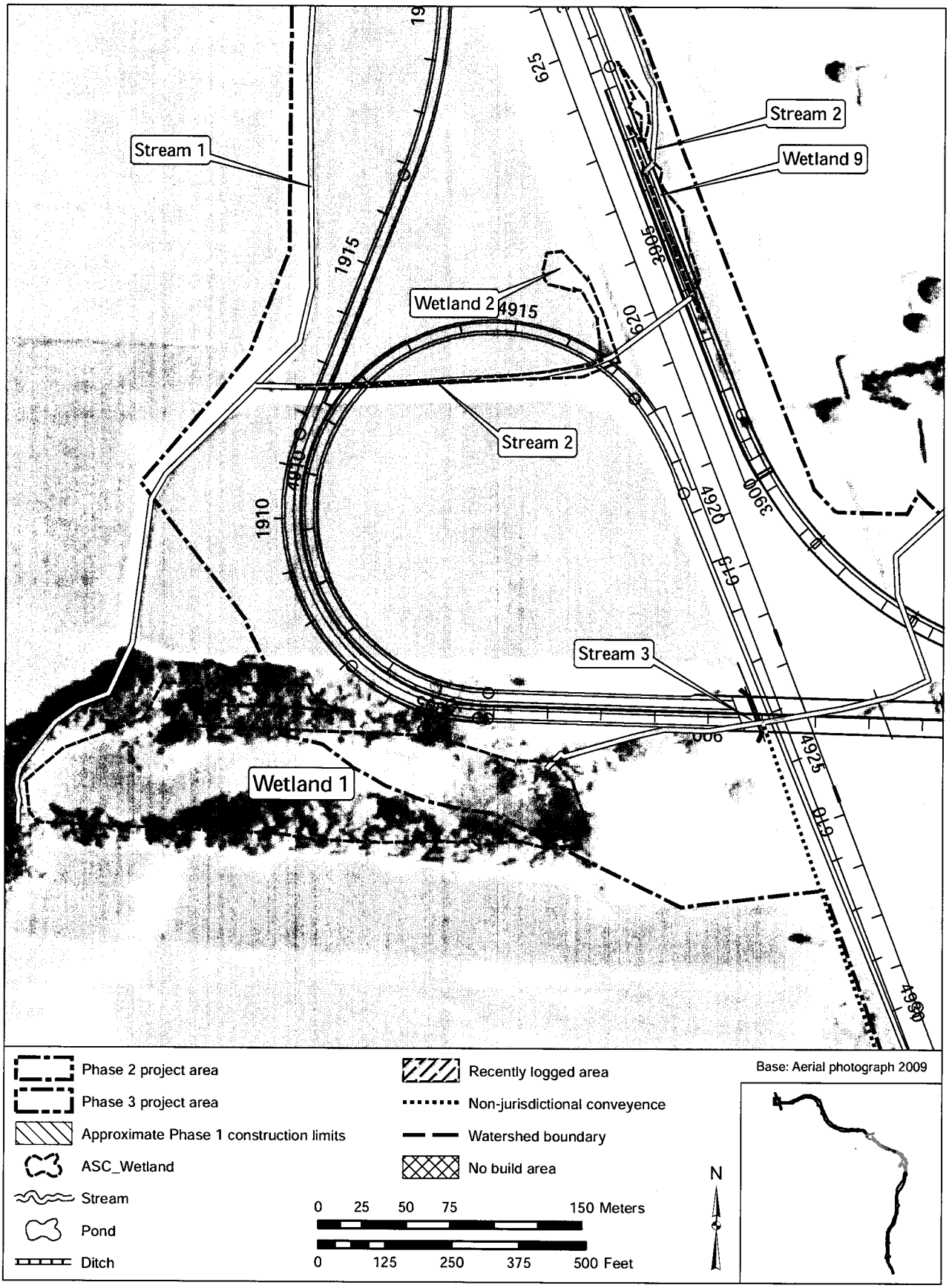

Figure 2. Survey results (Sheet 3 of 43)

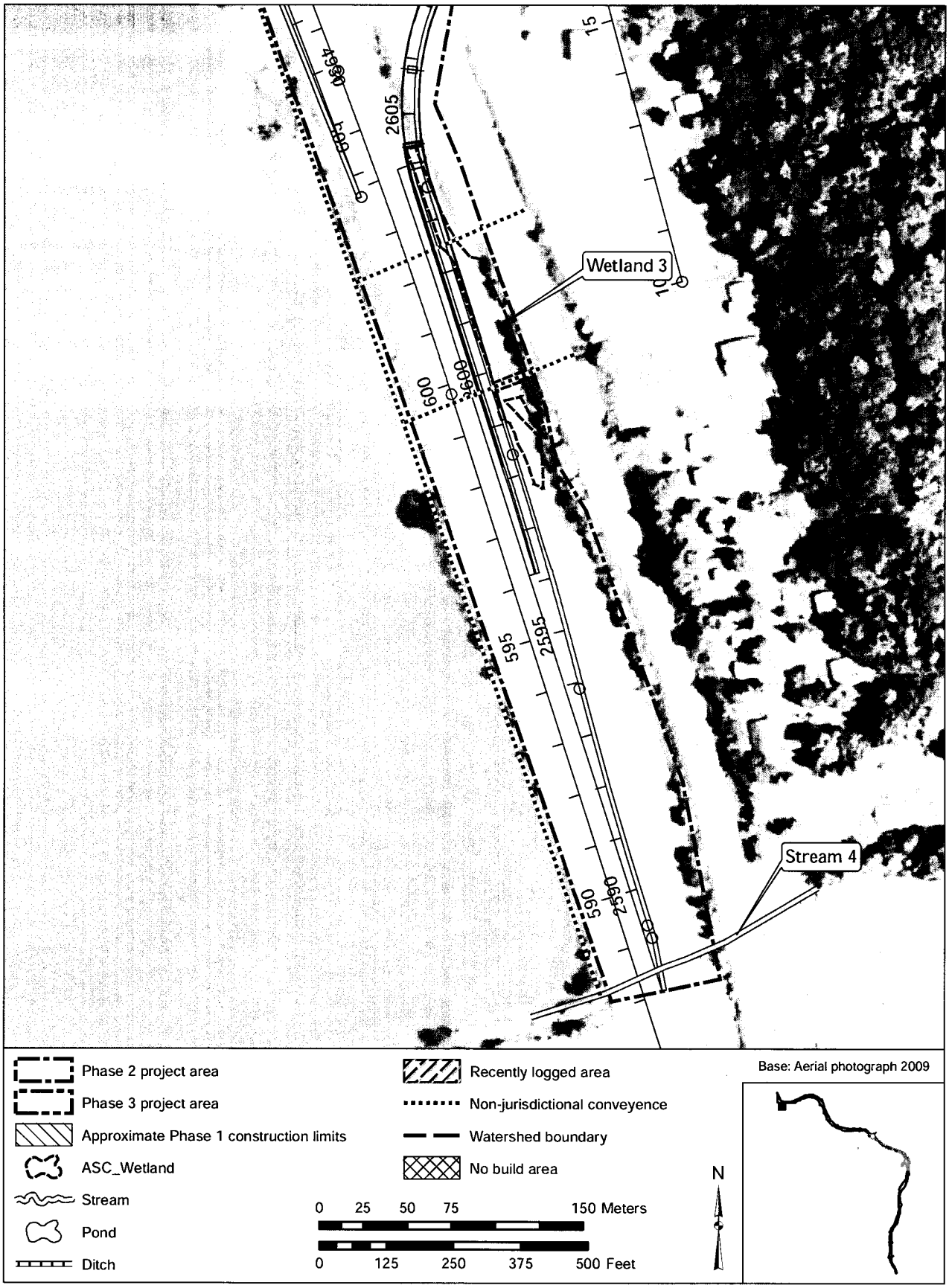

Figure 2. Survey results (Sheet 4 of 43)

Figure 2. Survey results (Sheet 5 of 43)

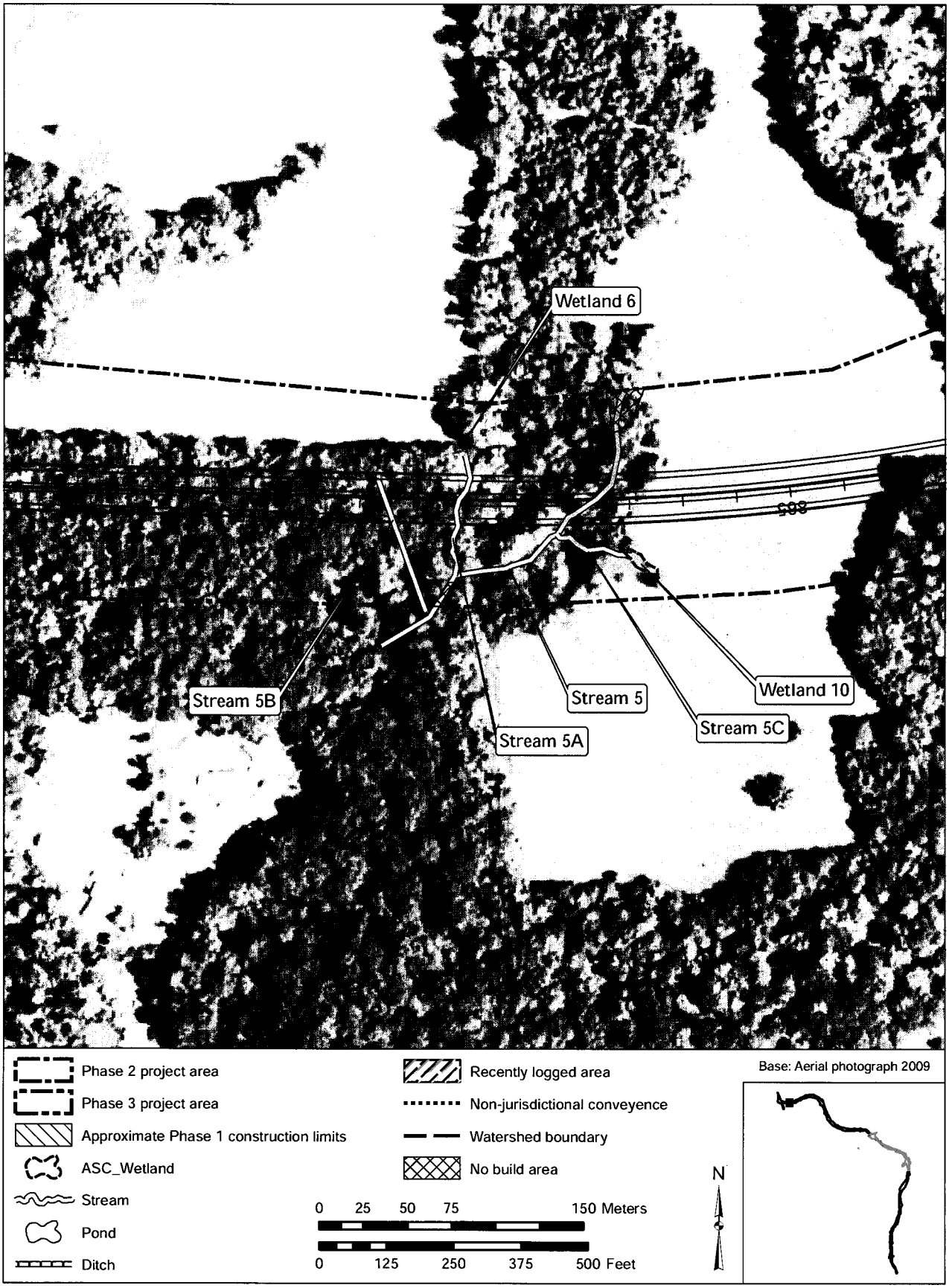

Figure 2. Survey results (Sheet 6 of 43)

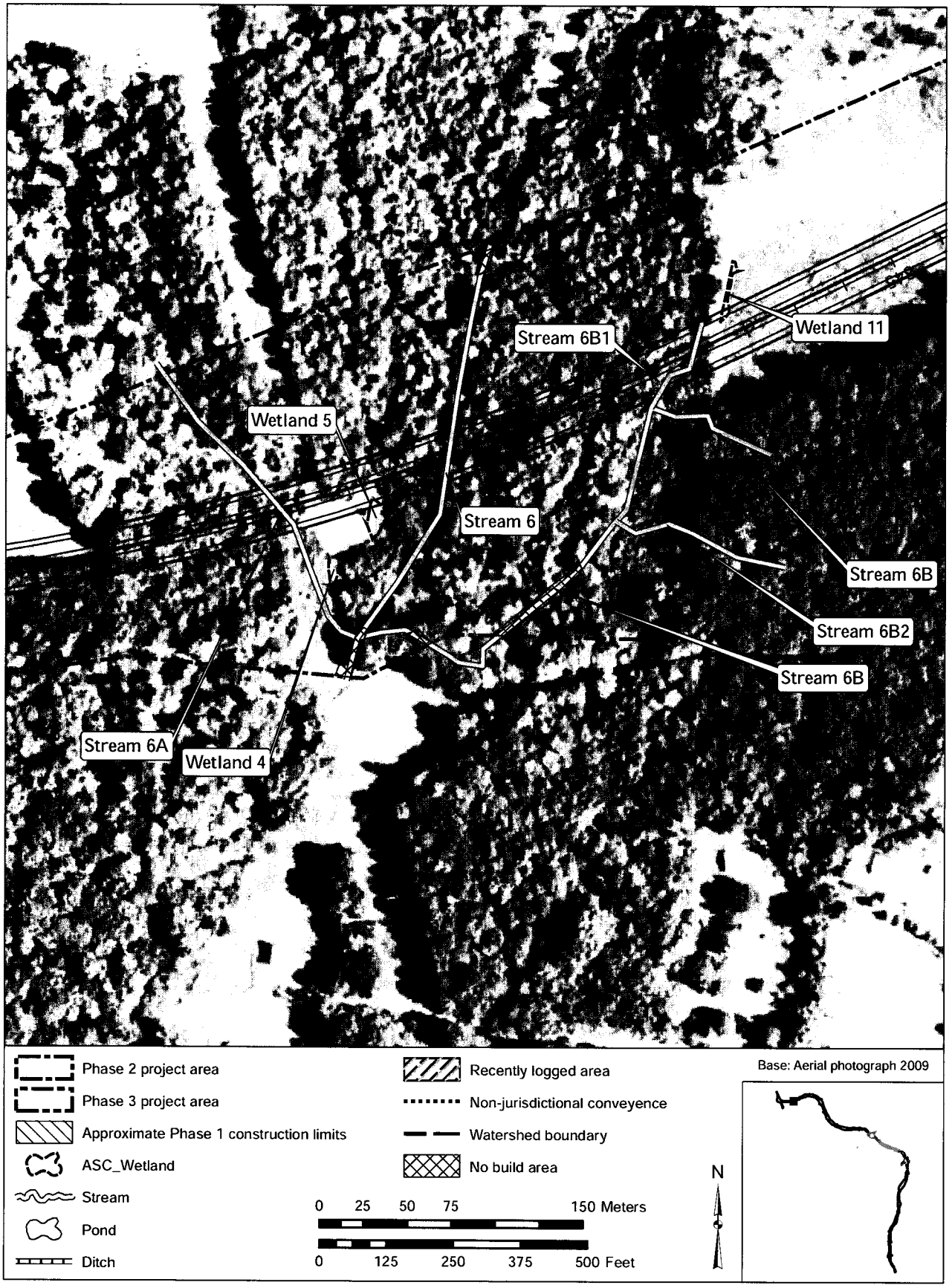

Figure 2. Survey results (Sheet 7 of 43)

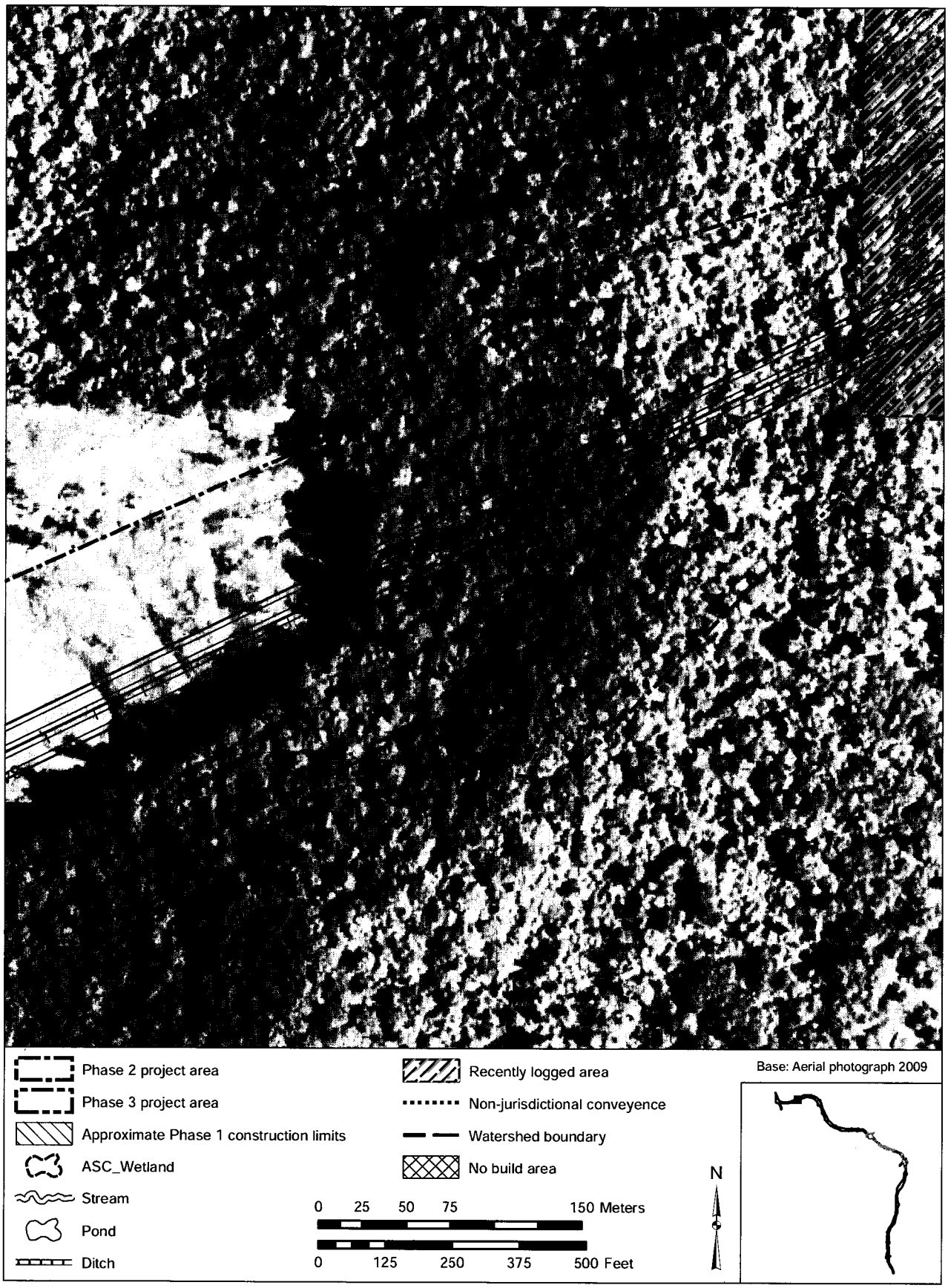

Figure 2. Survey results (Sheet 8 of 43)

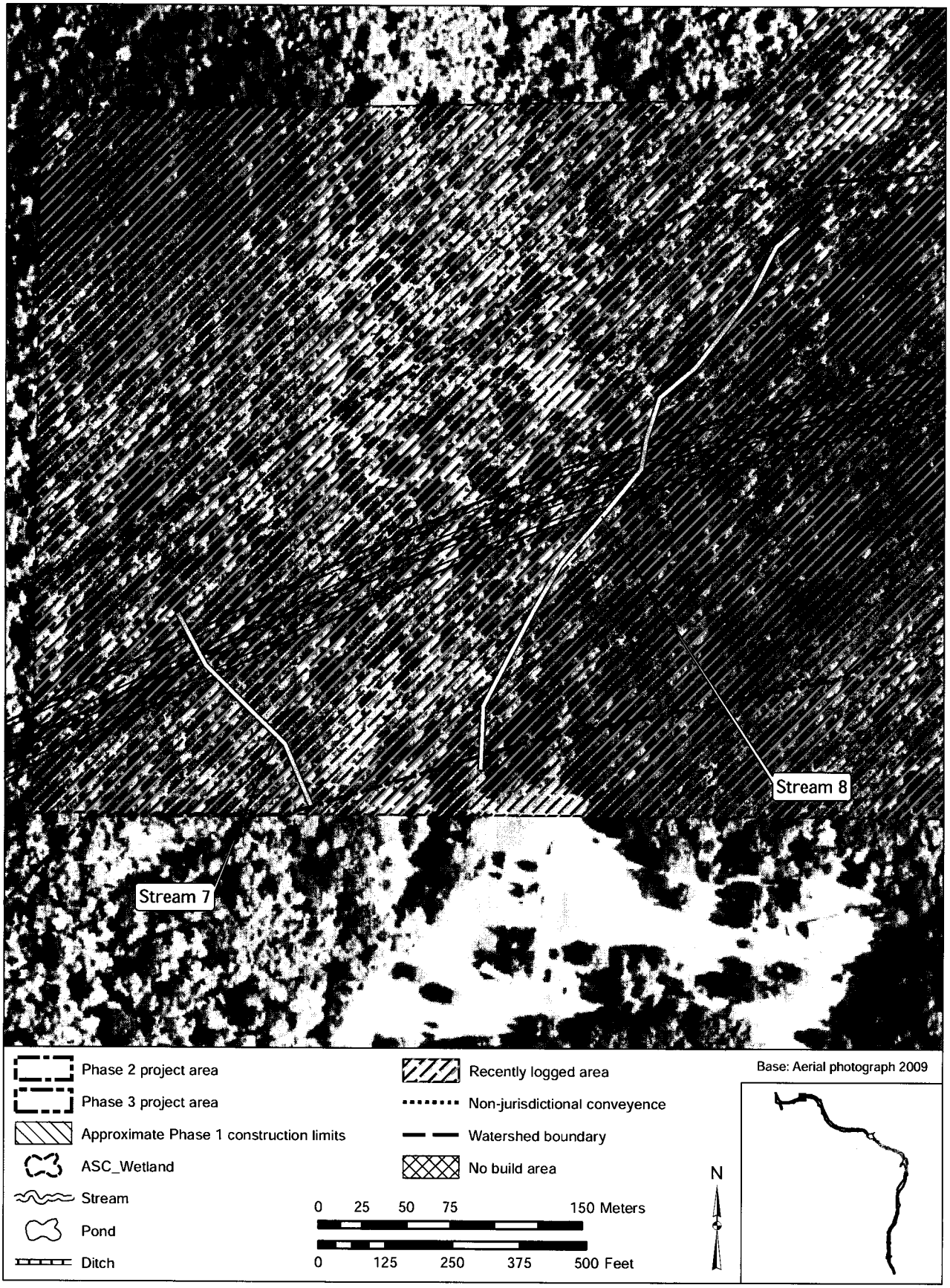

Figure 2. Survey results (Sheet 9 of 43)

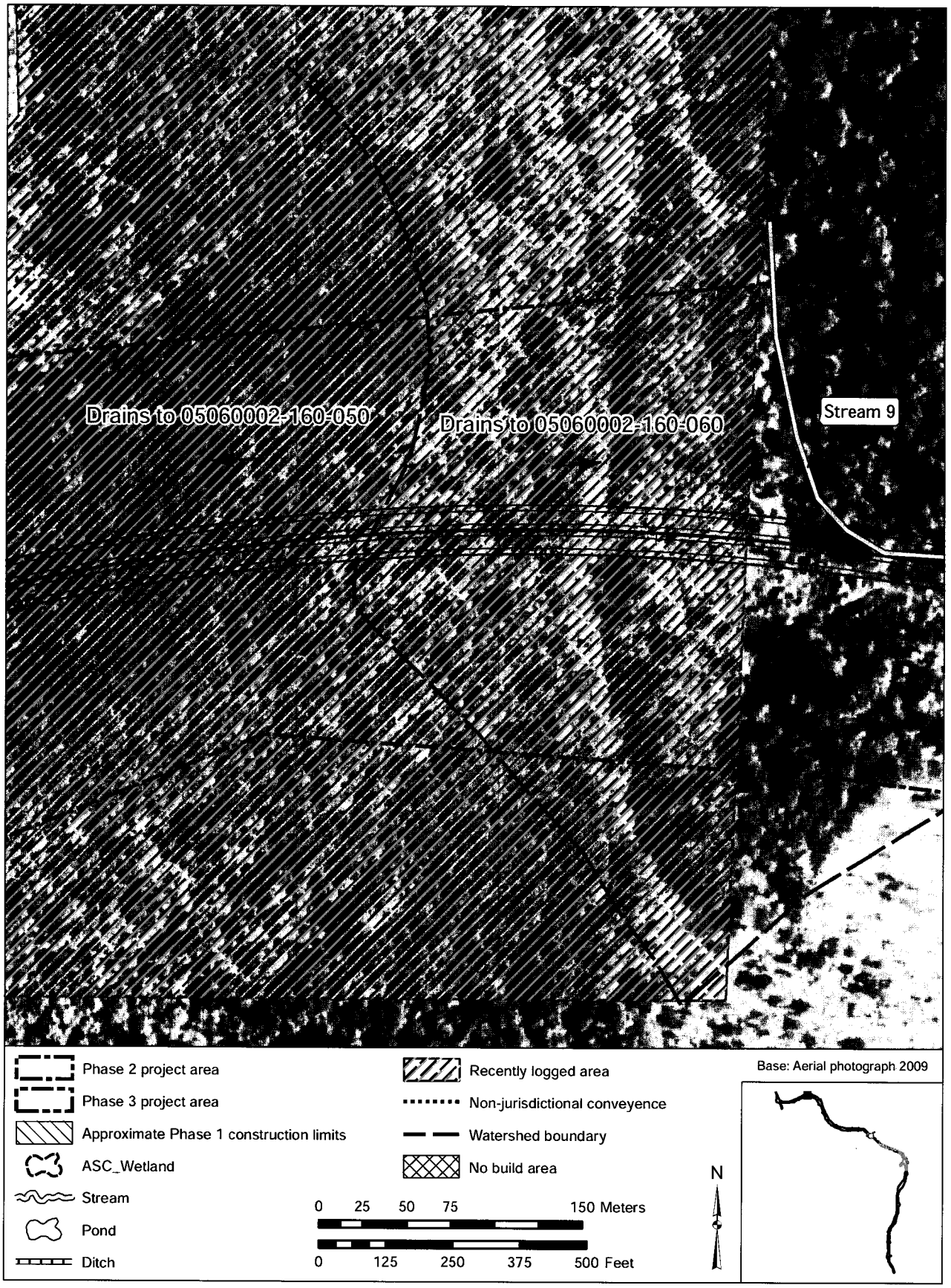

Figure 2. Survey results (Sheet 10 of 43)

Figure 2. Survey results (Sheet 11 of 43)

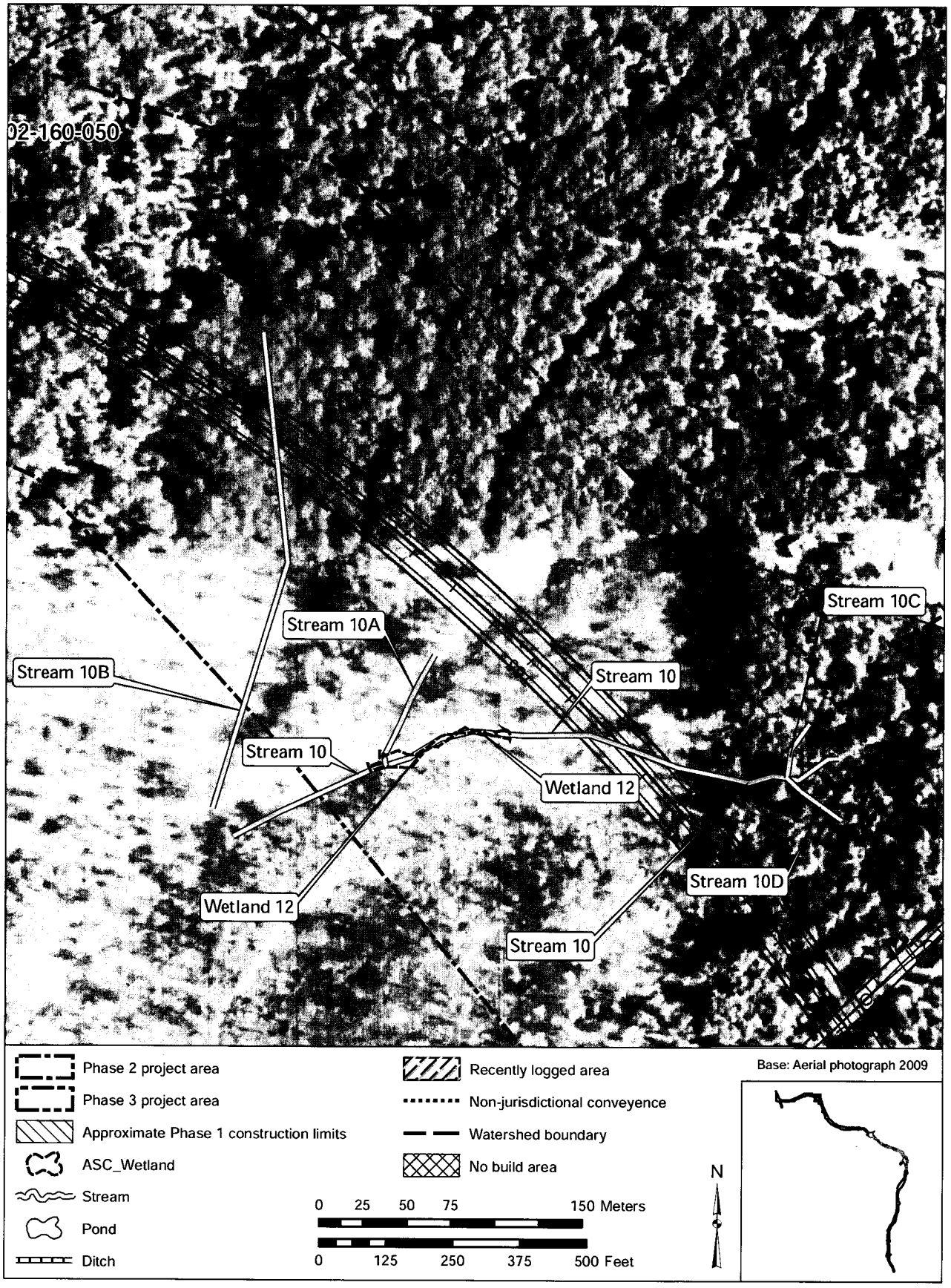

Figure 2. Survey results (Sheet 12 of 43)

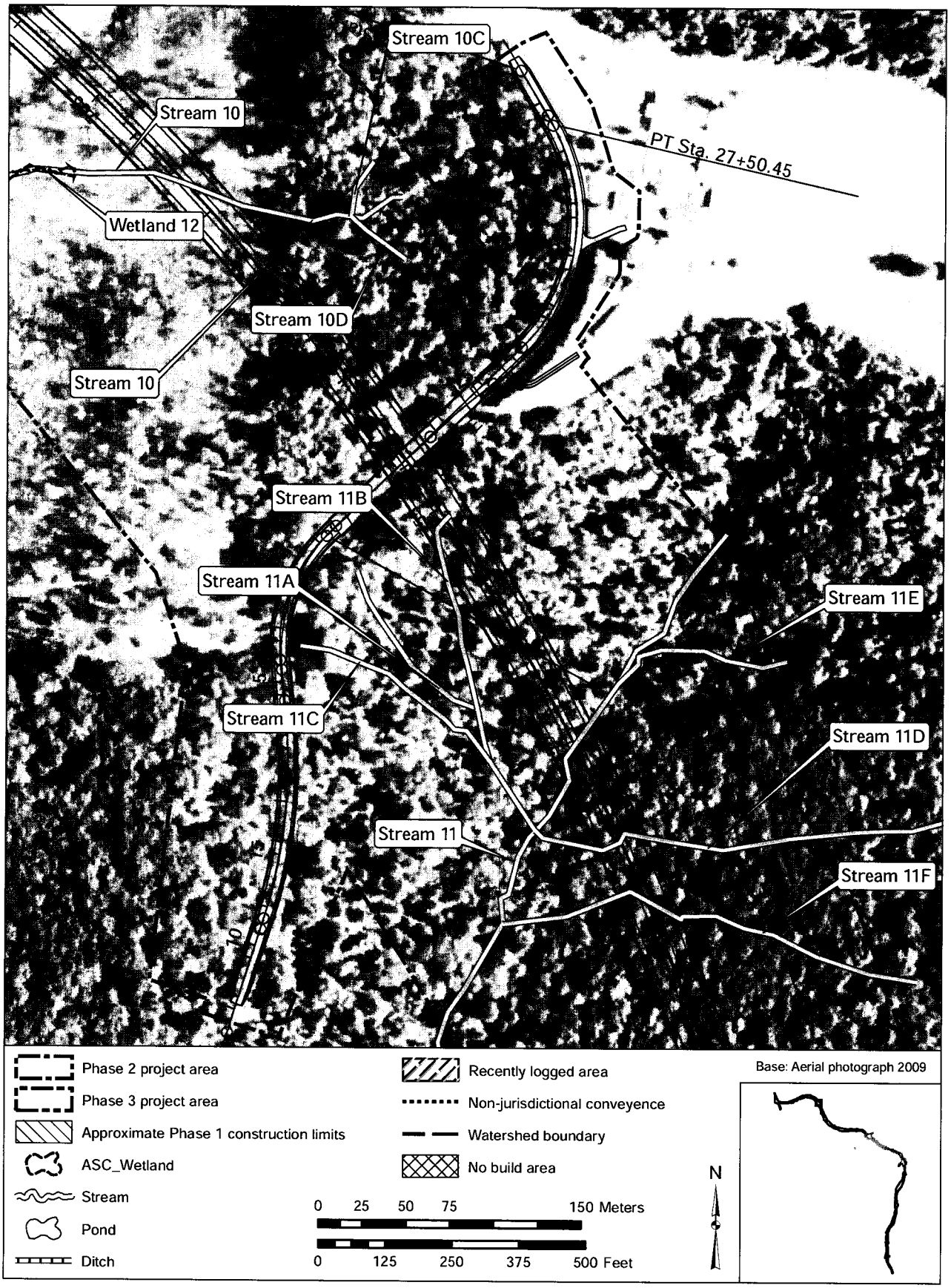

Figure 2. Survey results (Sheet 13 of 43)

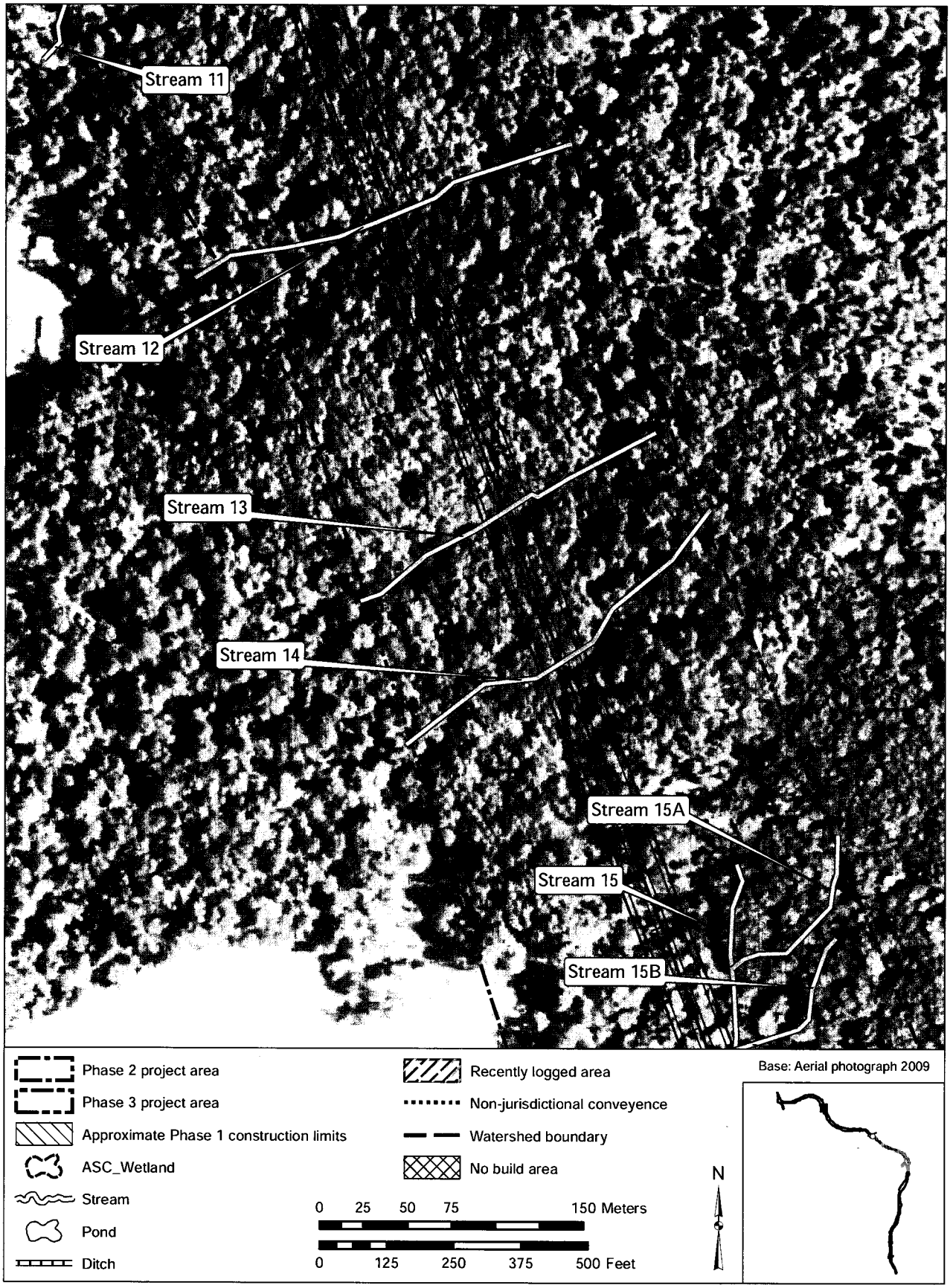

Figure 2. Survey results (Sheet 14 of 43)

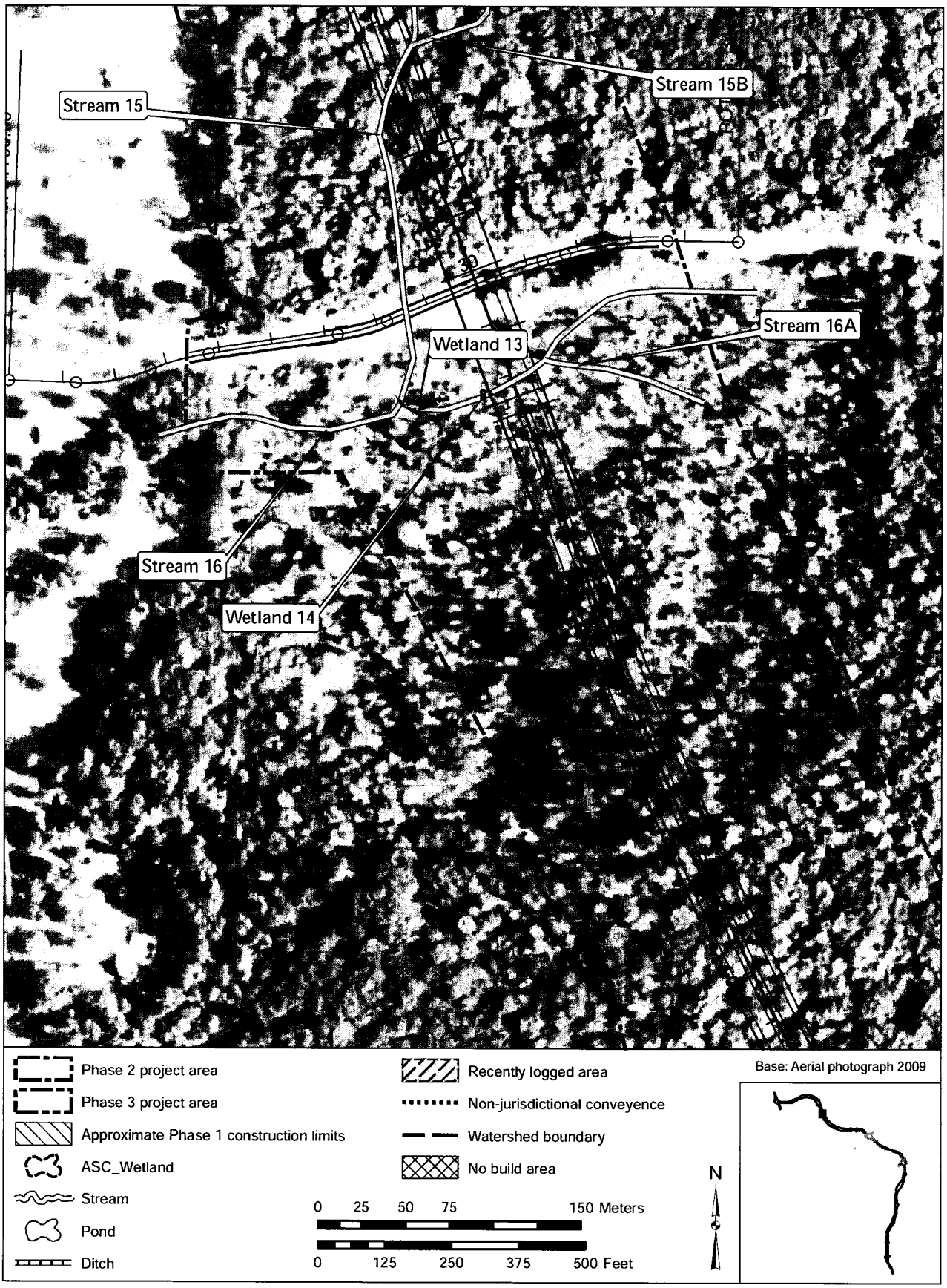

Figure 2. Survey results (Sheet 15 of 43)

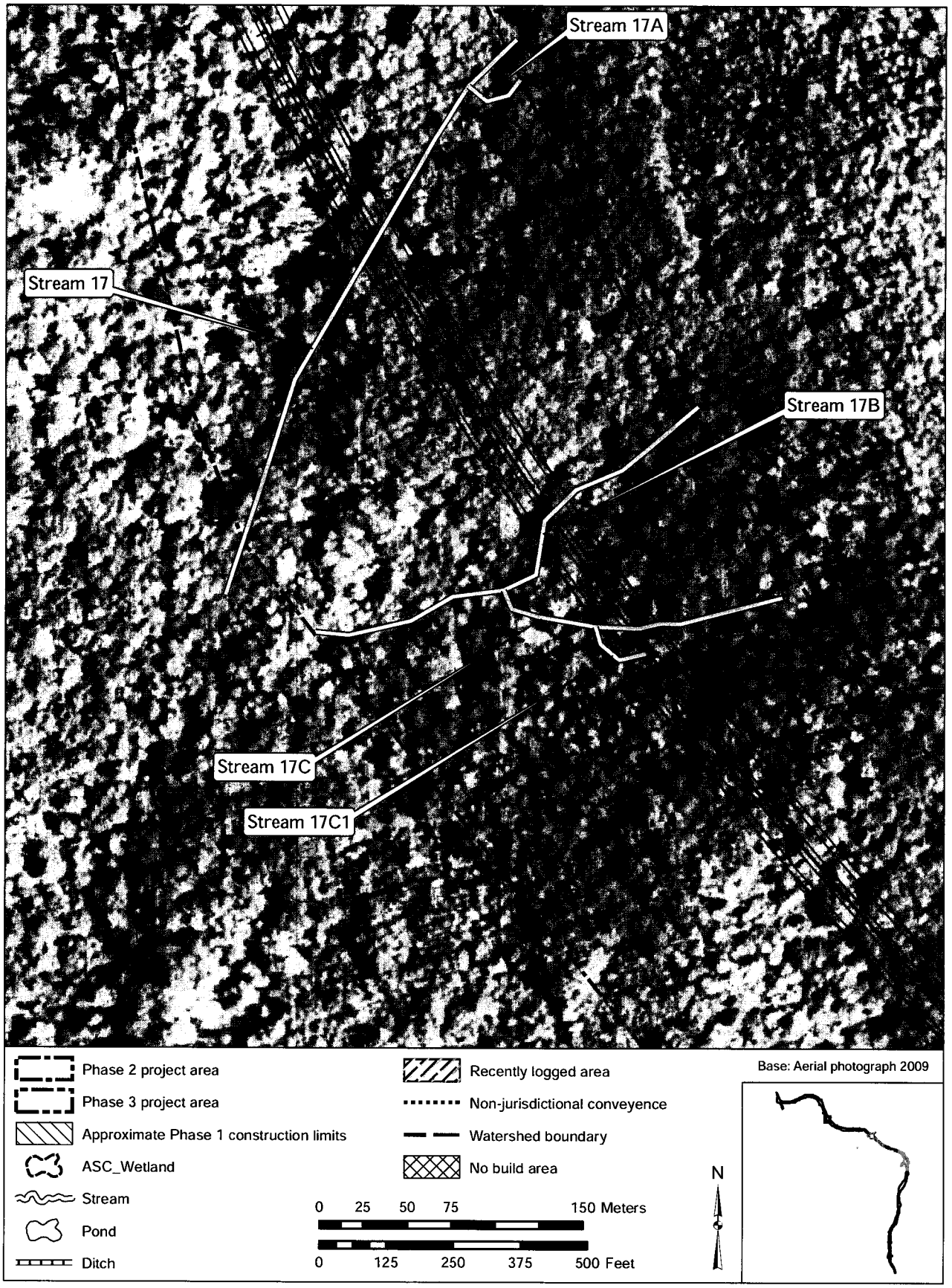

Figure 2. Survey results (Sheet 16 of 43)

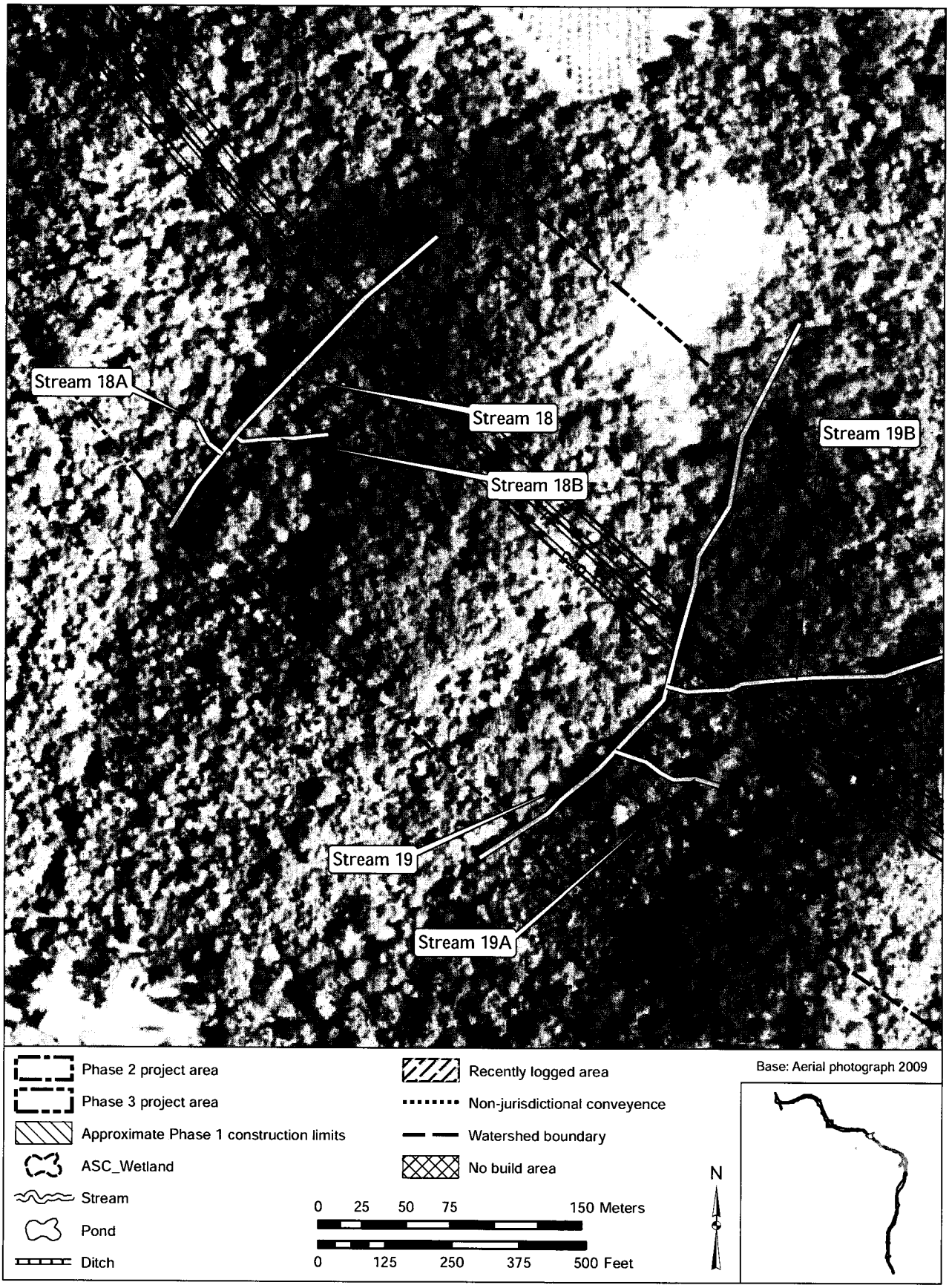

Figure 2. Survey results (Sheet 17 of 43)

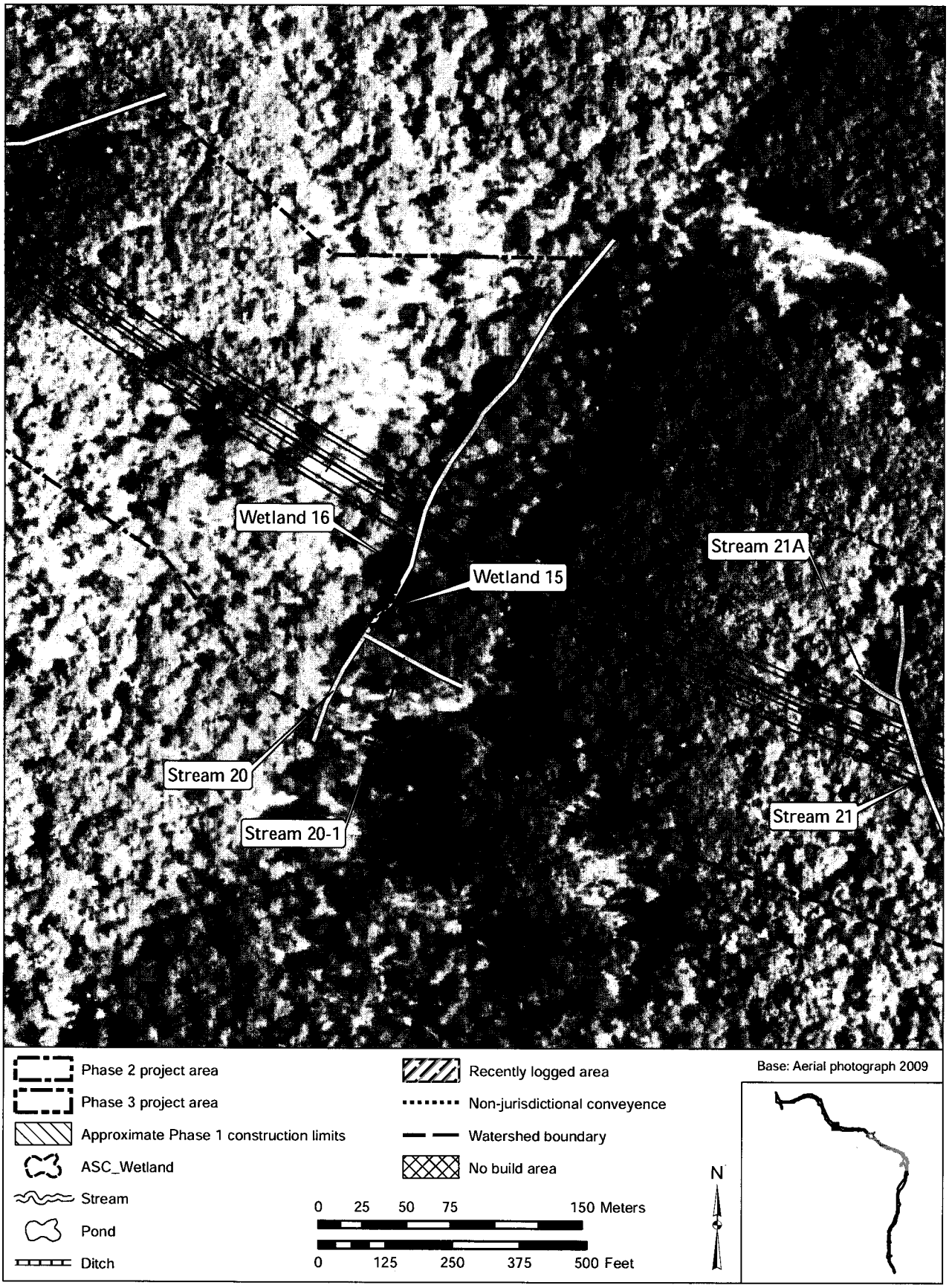

Figure 2. Survey results (Sheet 18 of 45)

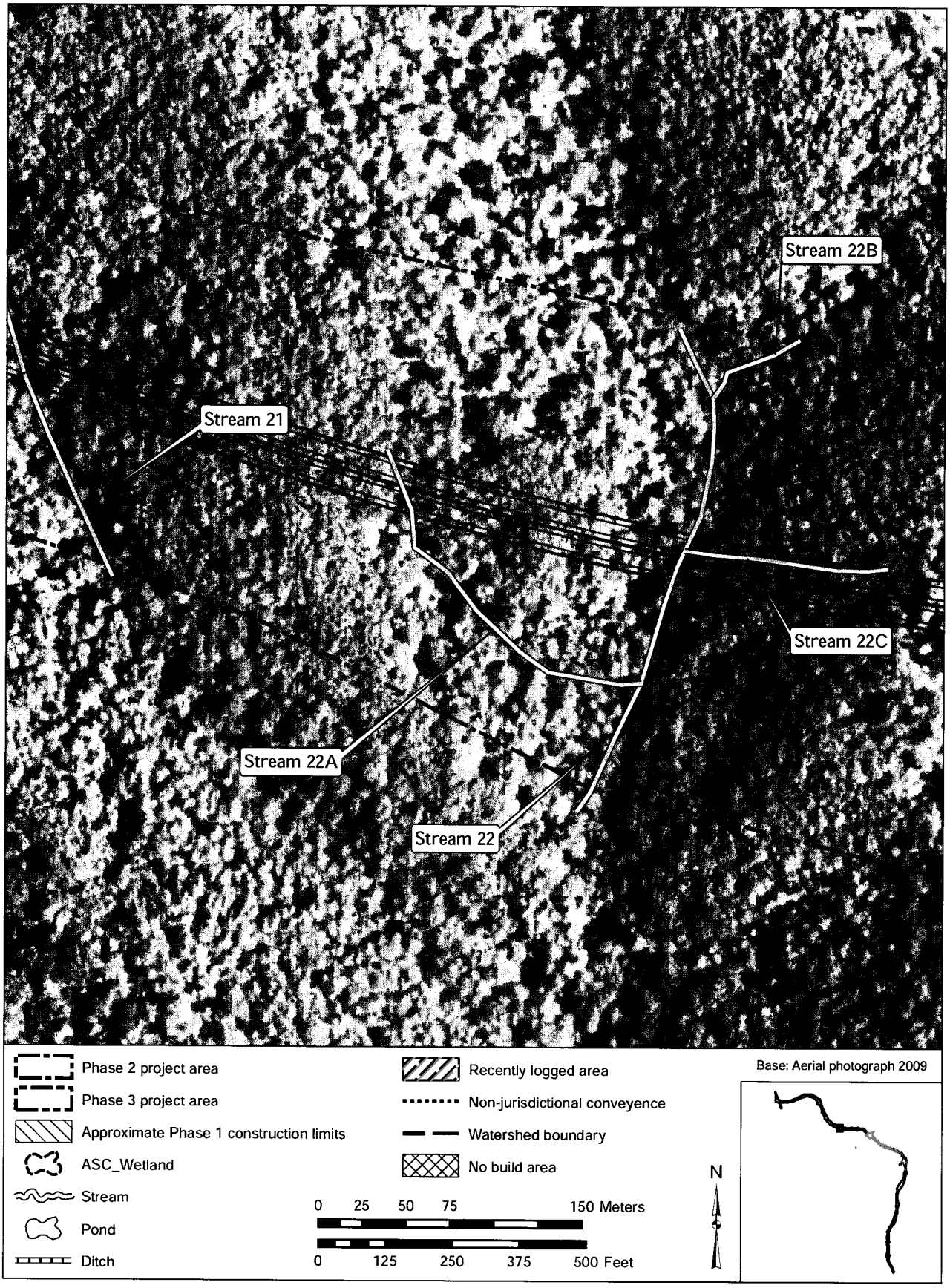

Figure 2. Survey results (Sheet 19 of 43)

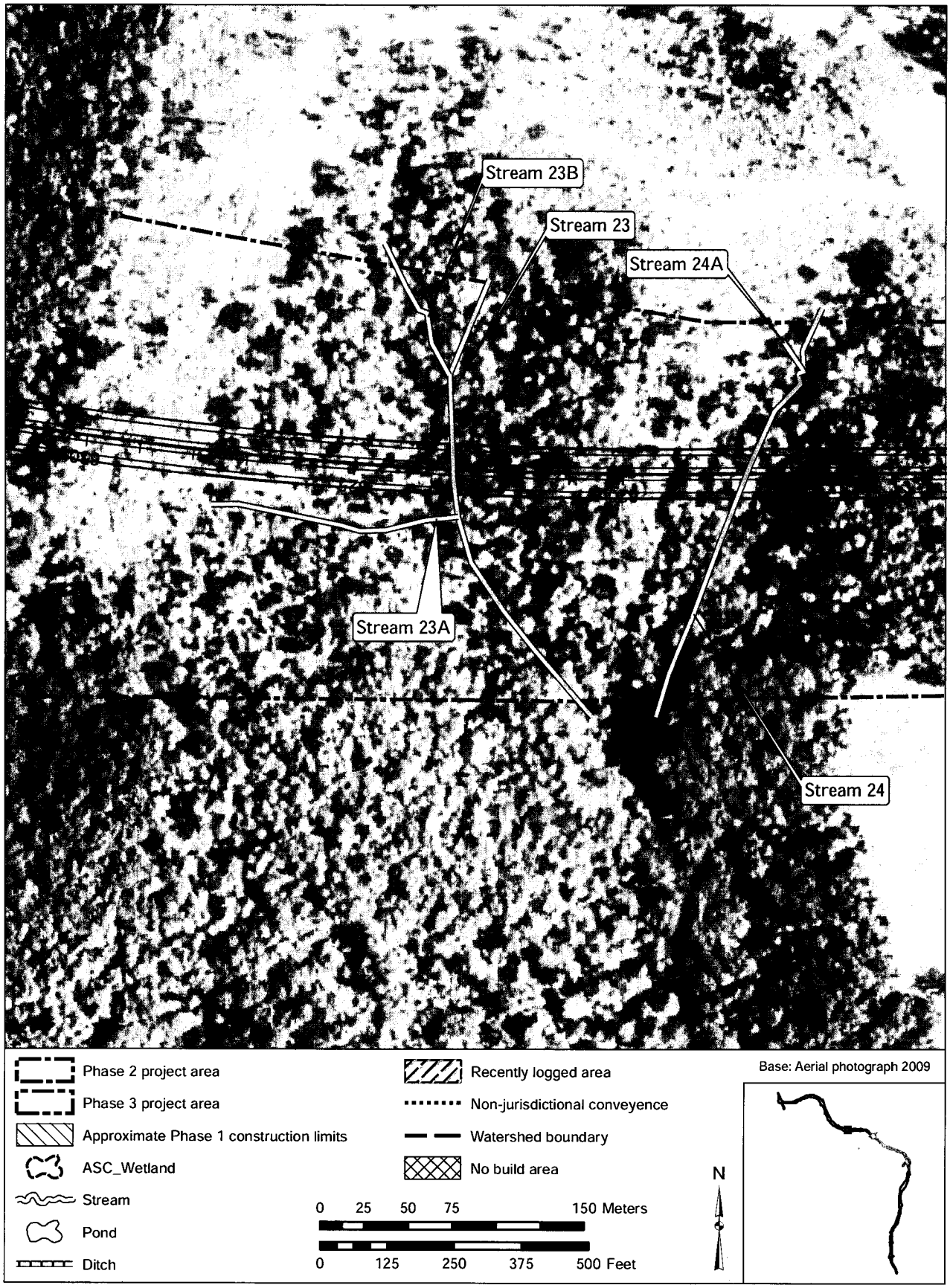

Figure 2. Survey results (Sheet 20 of 43)

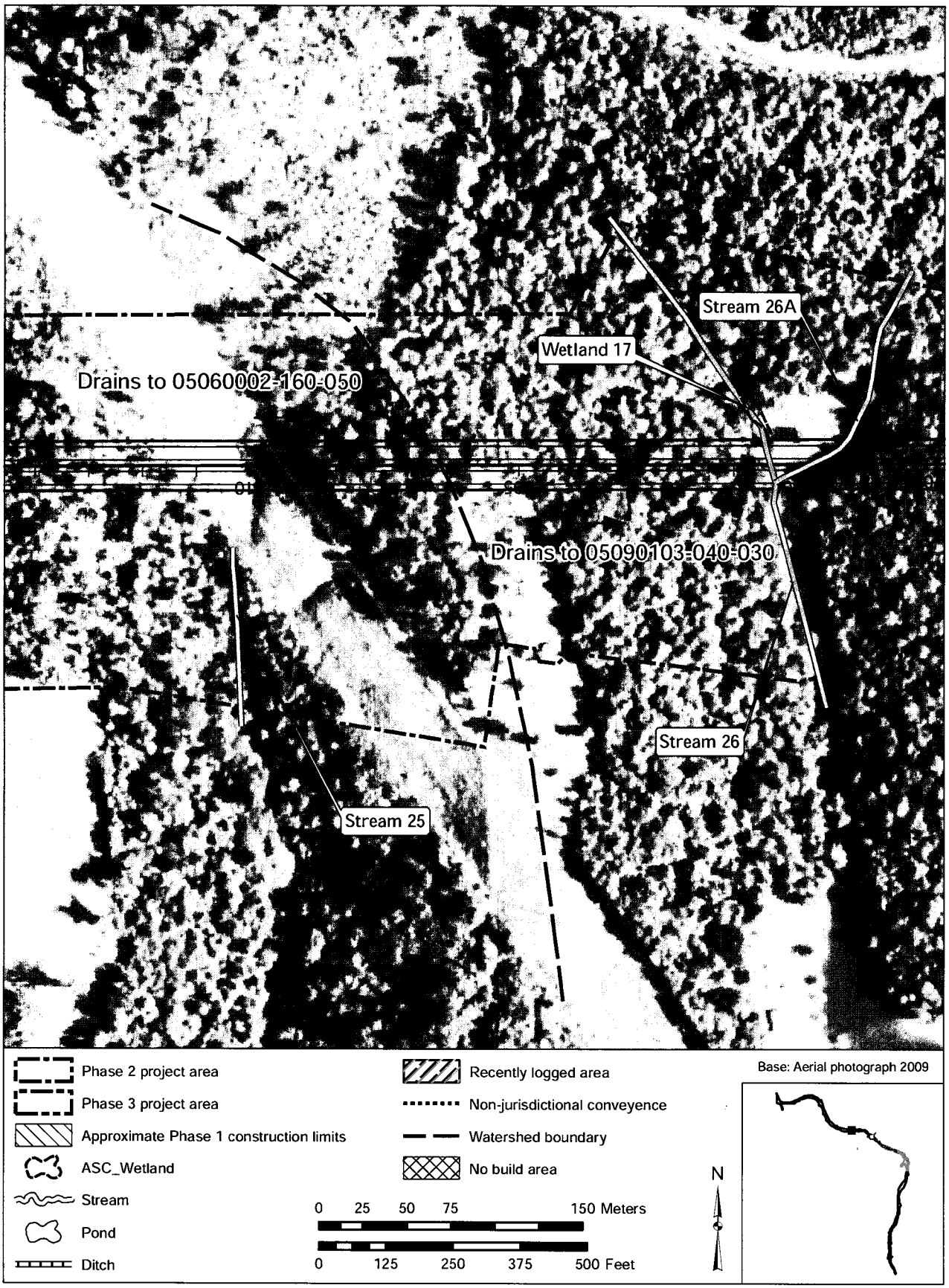

Figure 2. Survey results (Sheet 21 of 43)

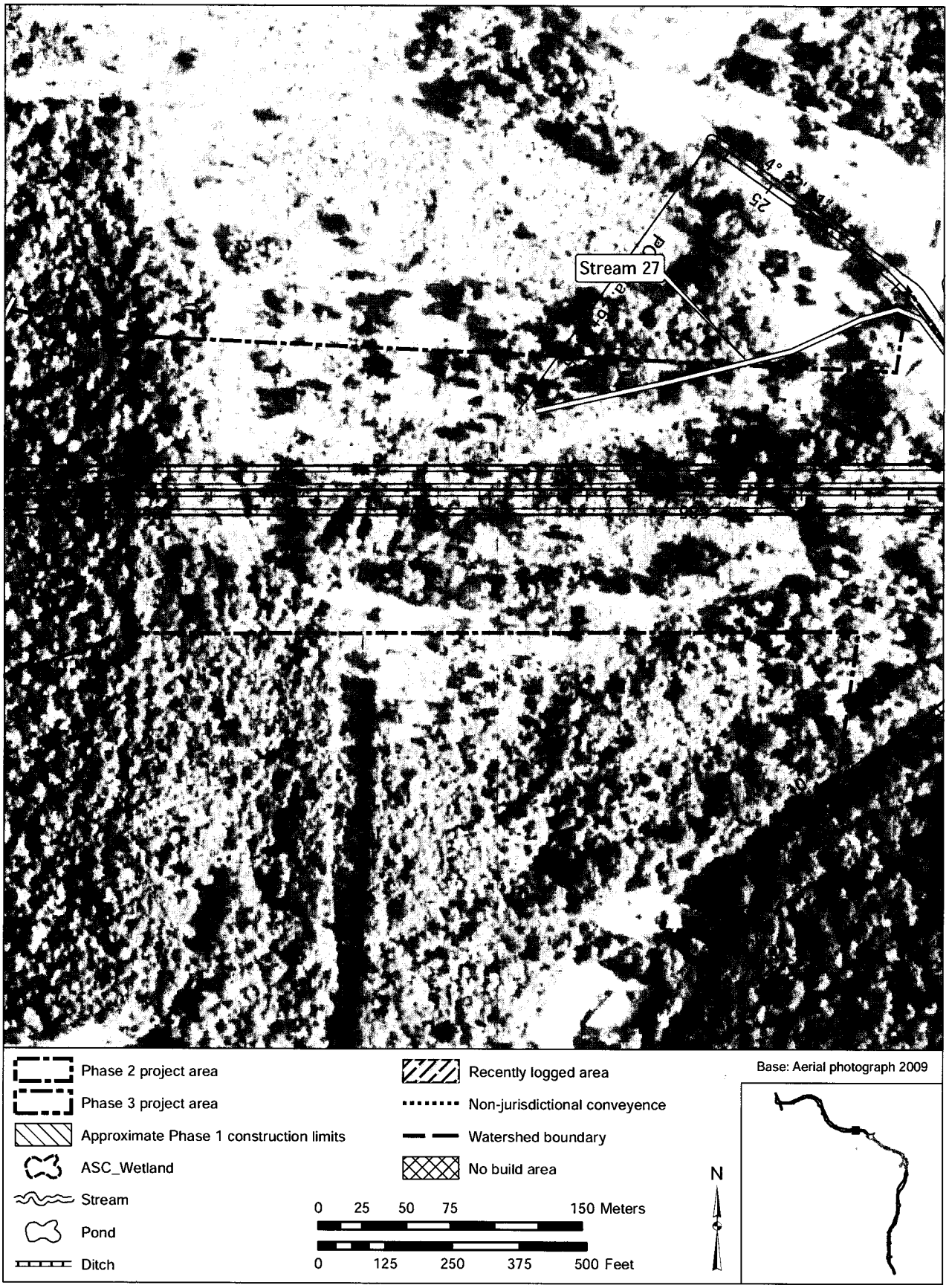

Figure 2. Survey results (Sheet 22 of 43)

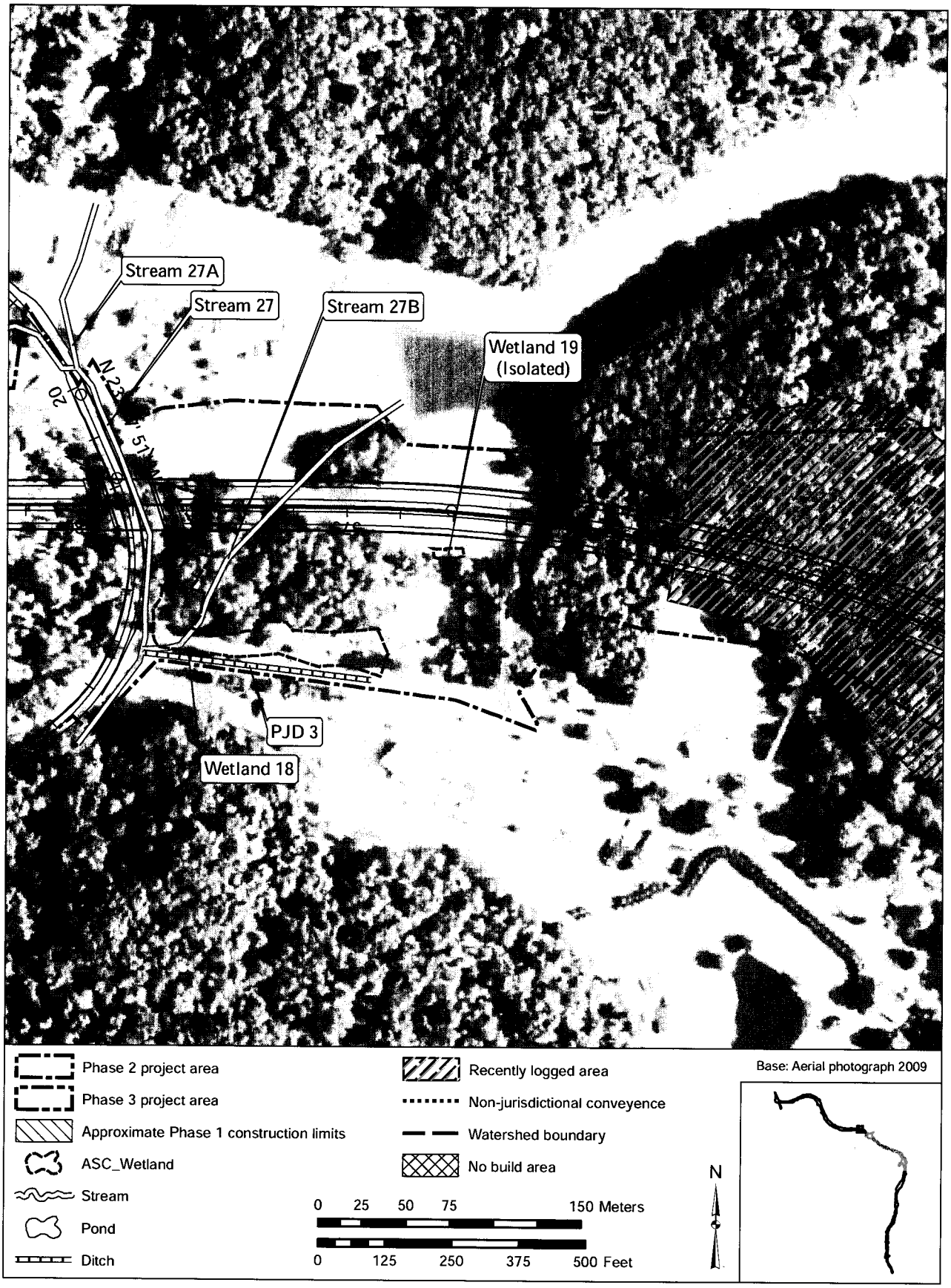

Figure 2. Survey results (Sheet 23 of 45)

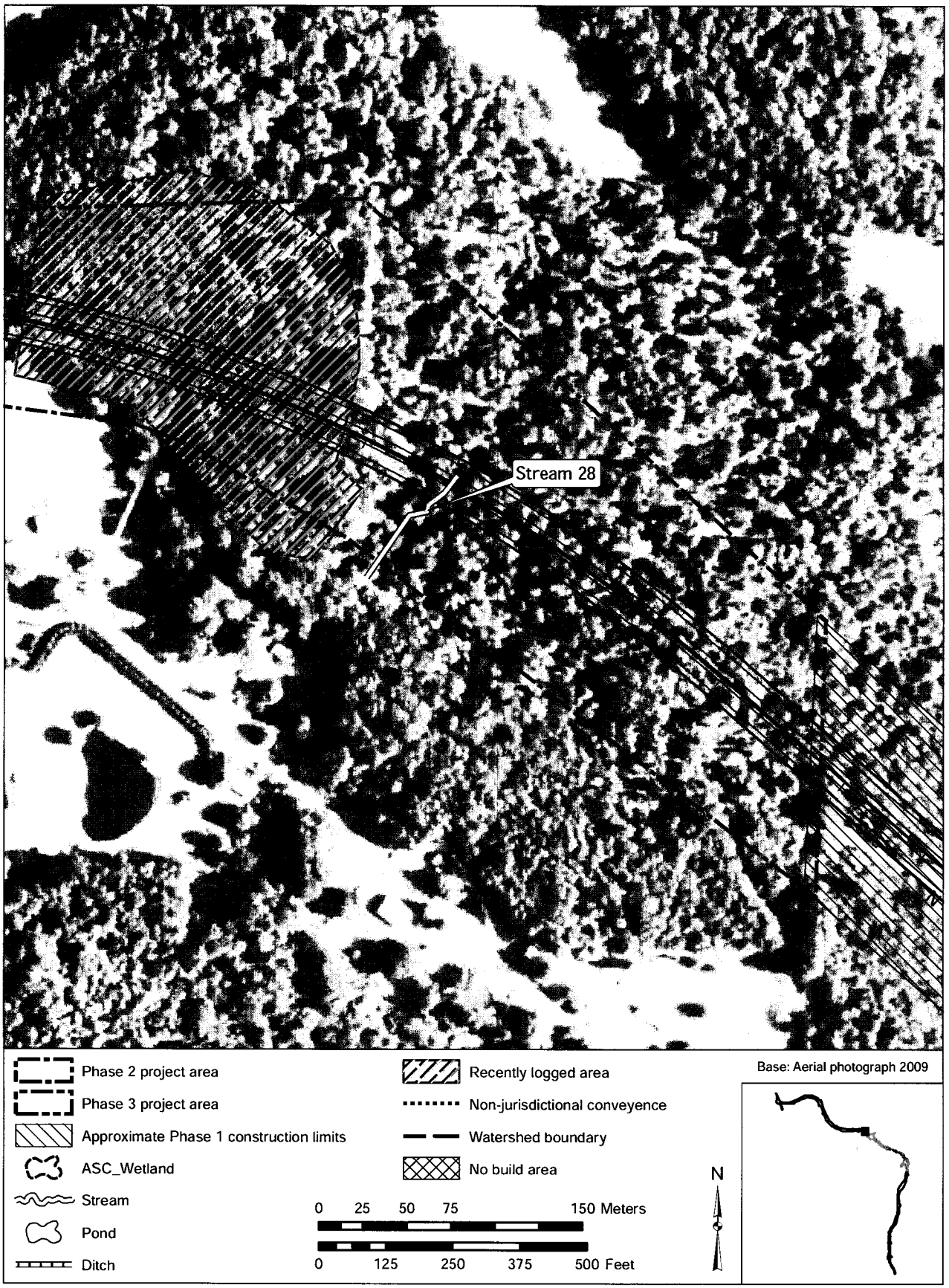

Figure 2. Survey results (Sheet 24 of 43)

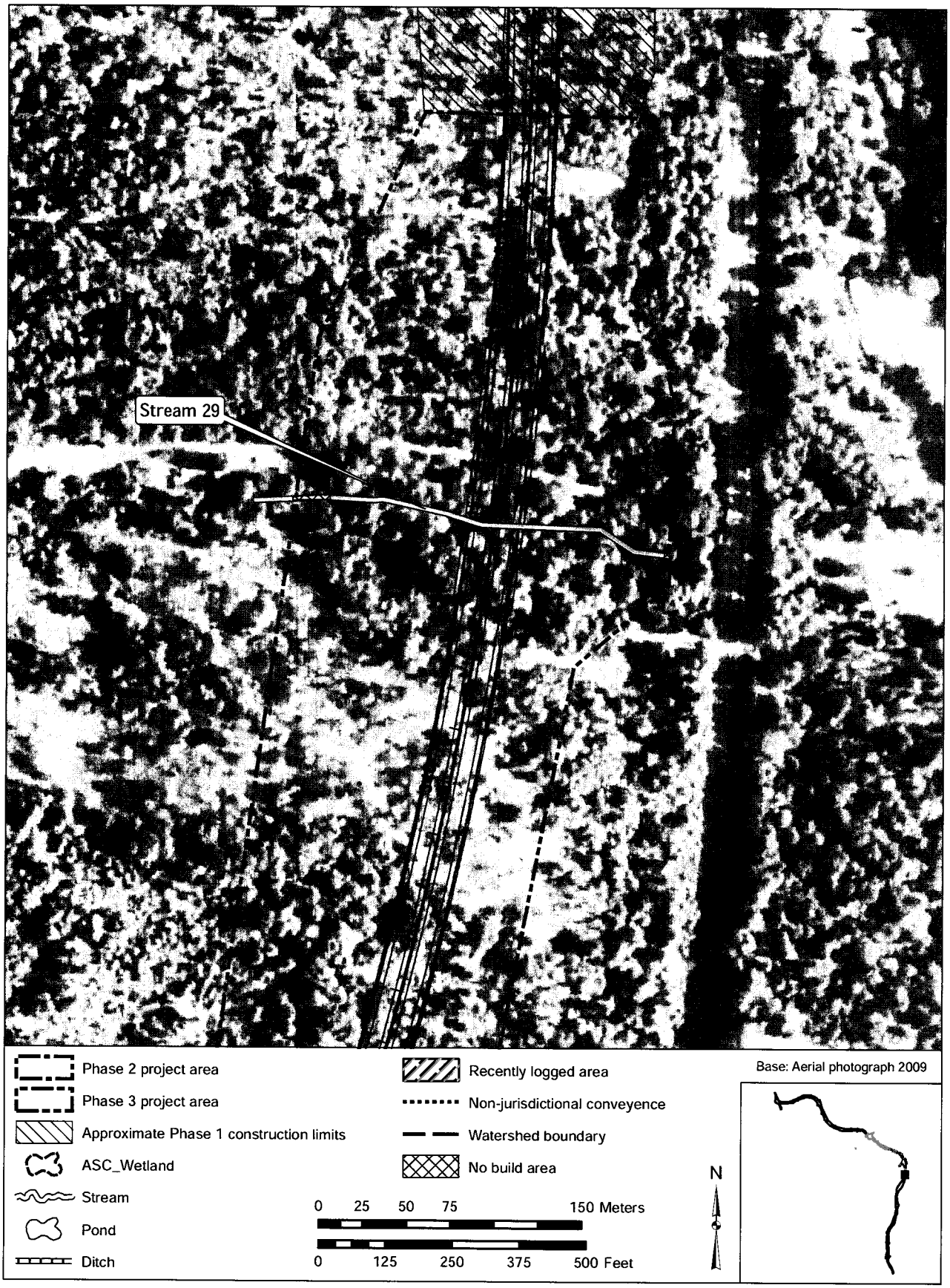

Figure 2. Survey results (Sheet 25 of 43)

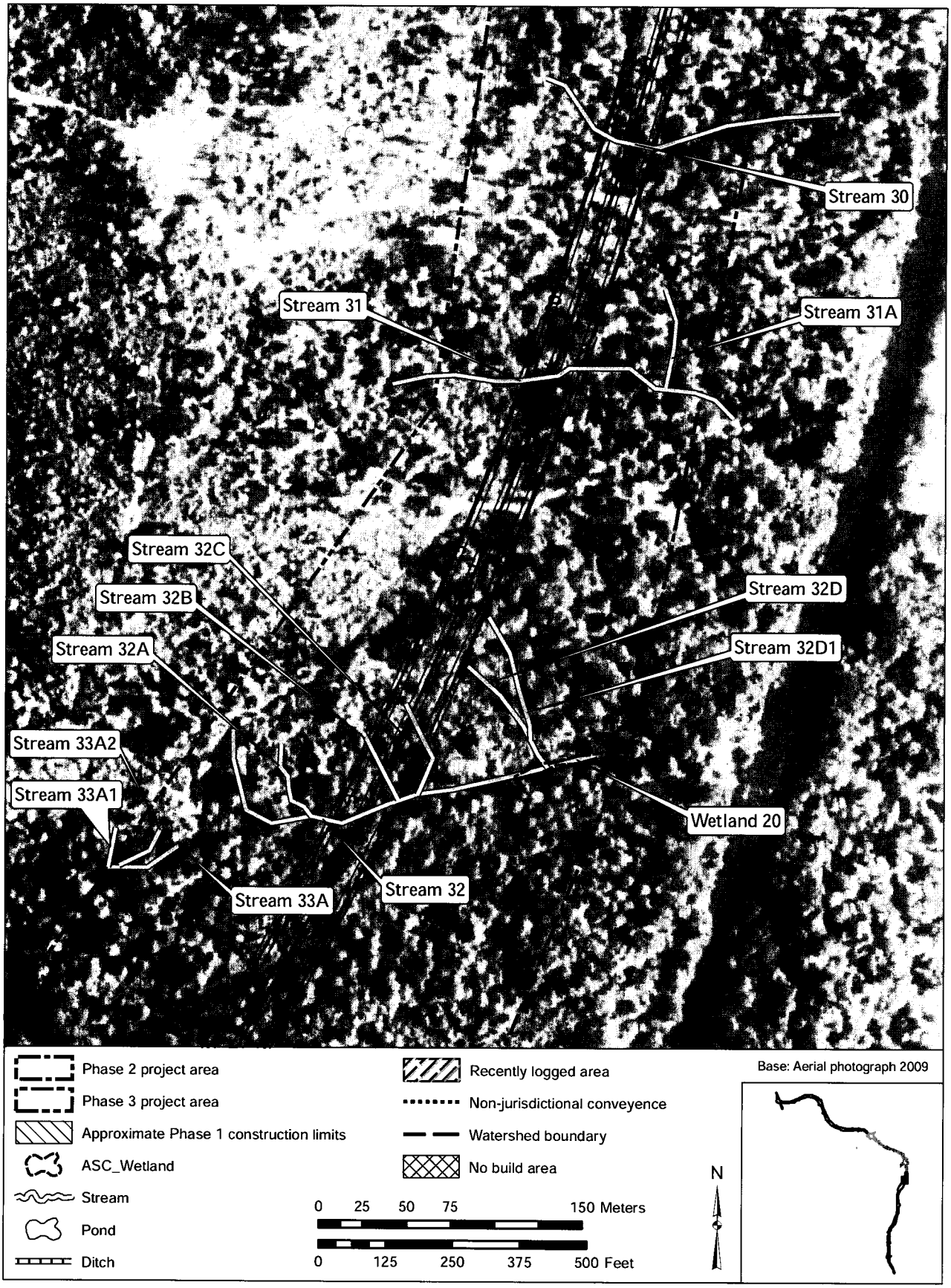

Figure 2. Survey results (Sheet 26 of 43)

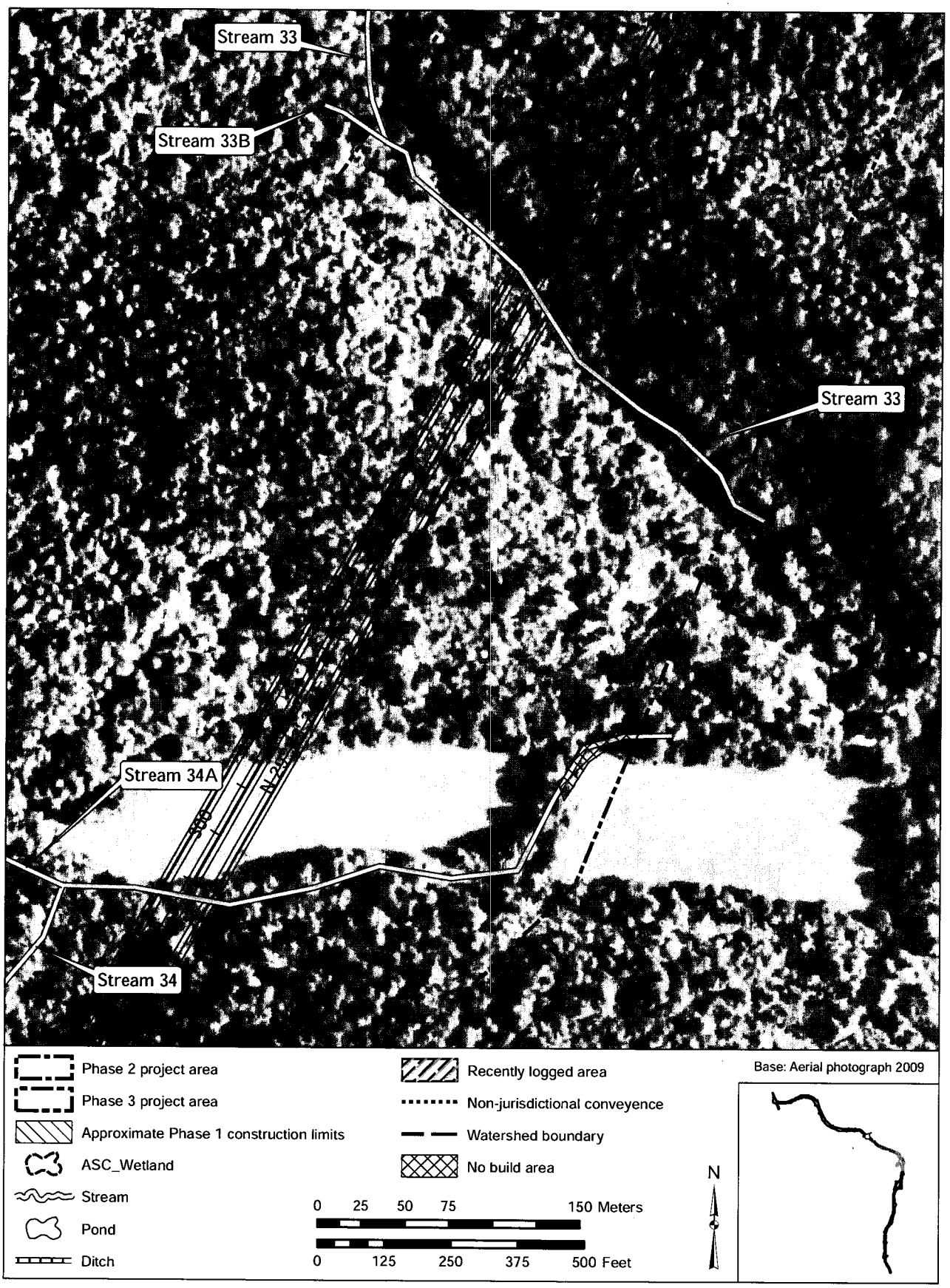

Figure 2. Survey results (Sheet 27 of 43)

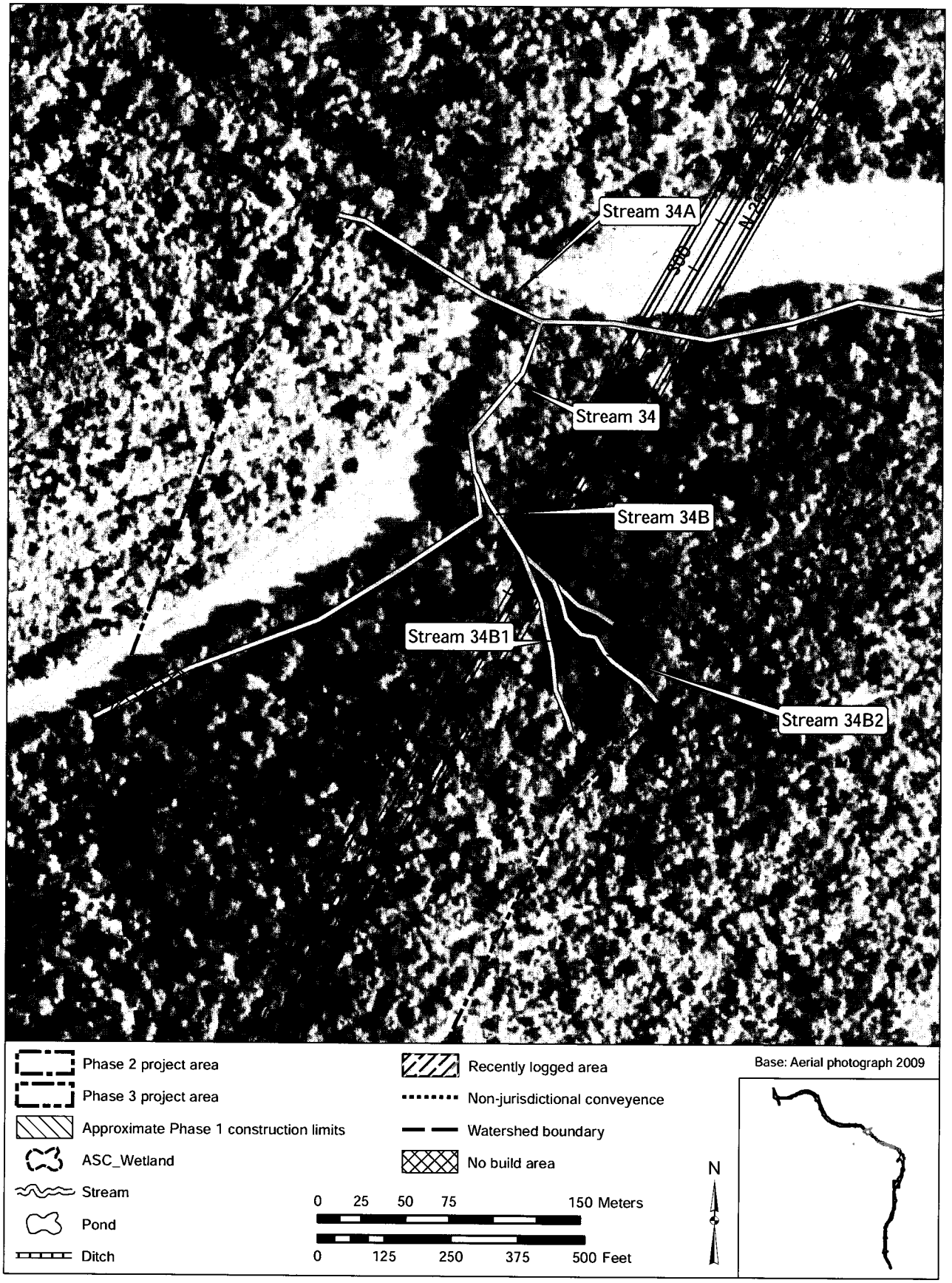

Figure 2. Survey results (Sheet 28 of 43)

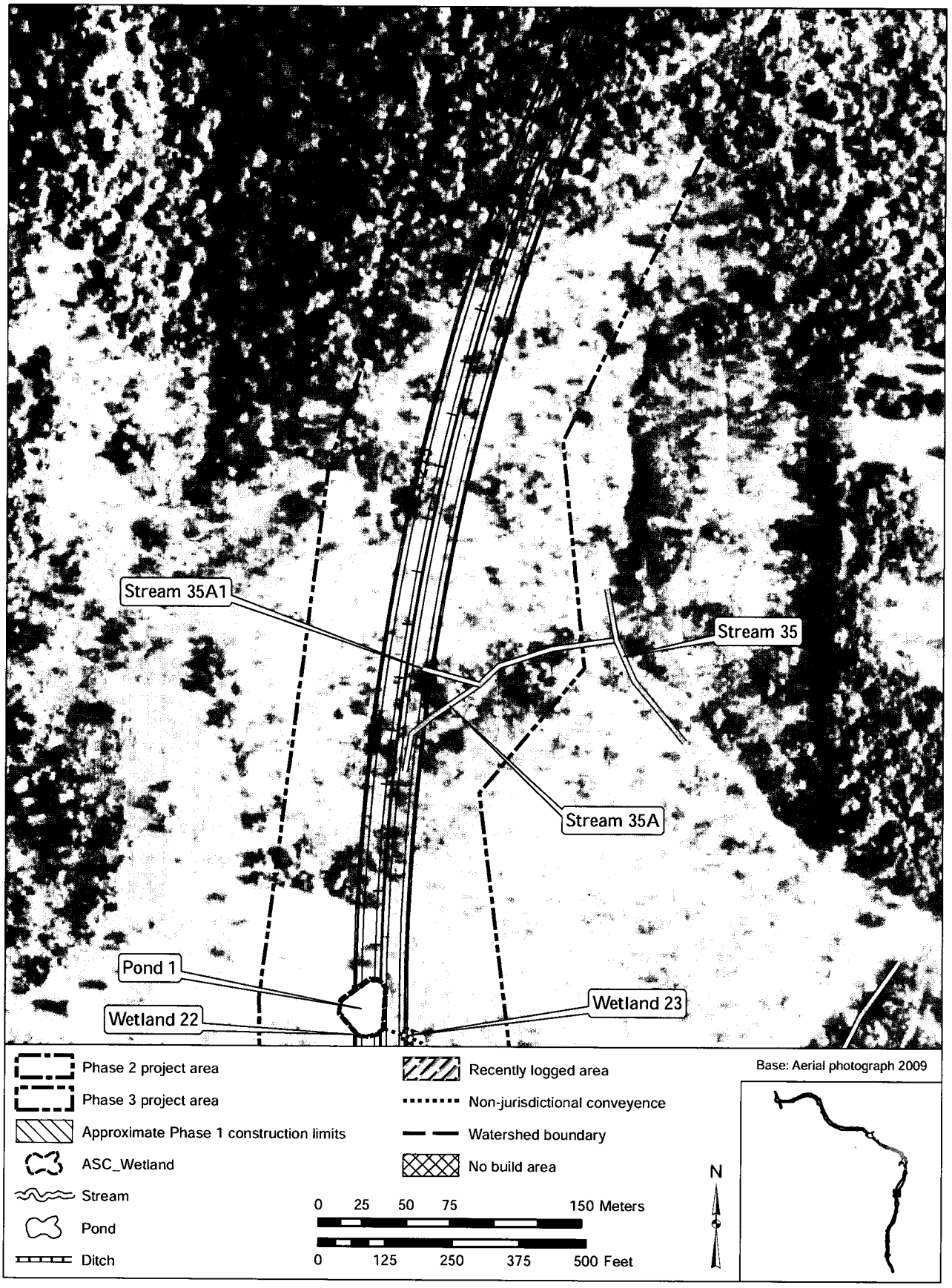

Figure 2. Survey results (Sheet 29 of 43)

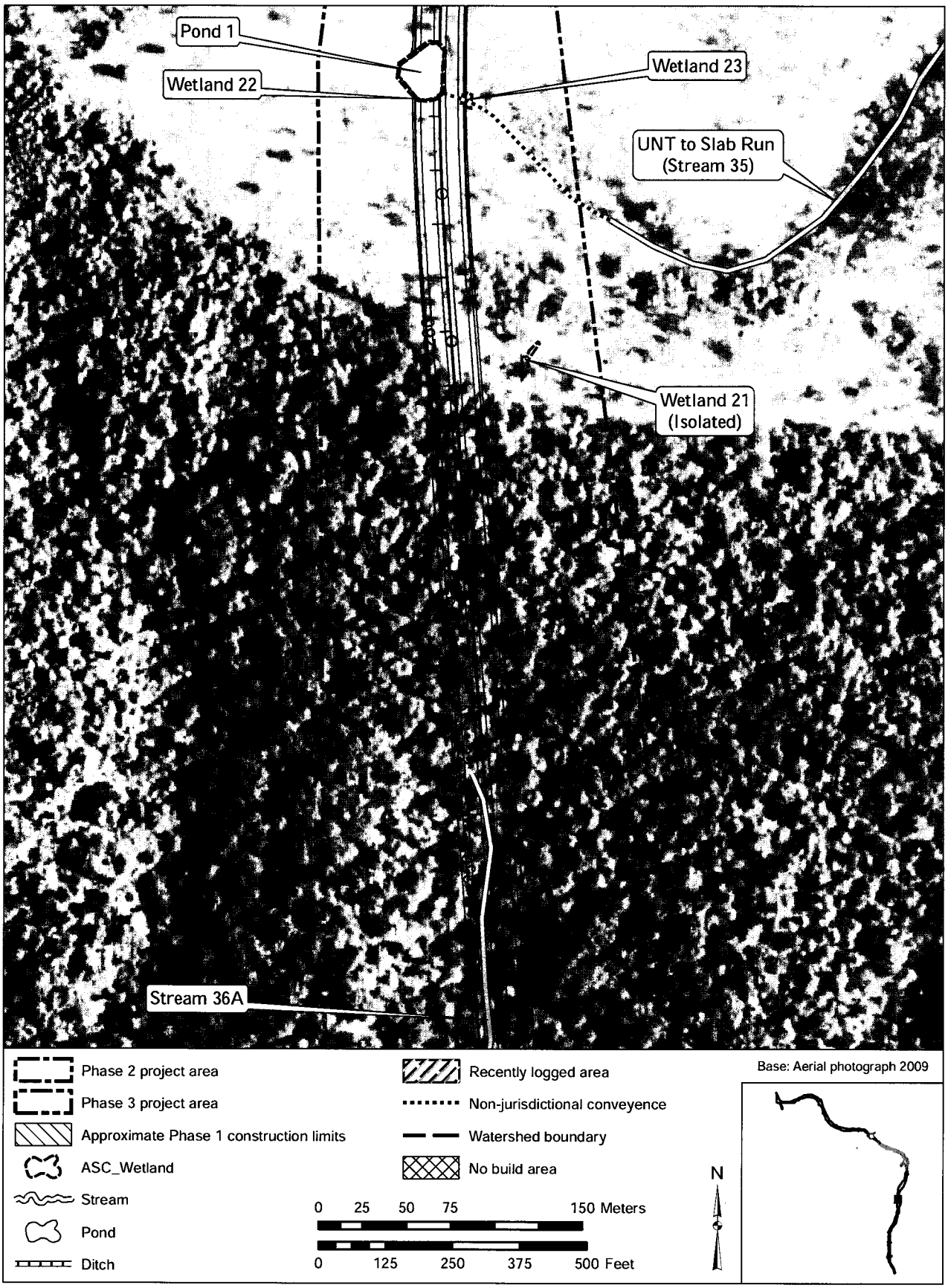

Figure 2. Survey results (Sheet 30 of 43)

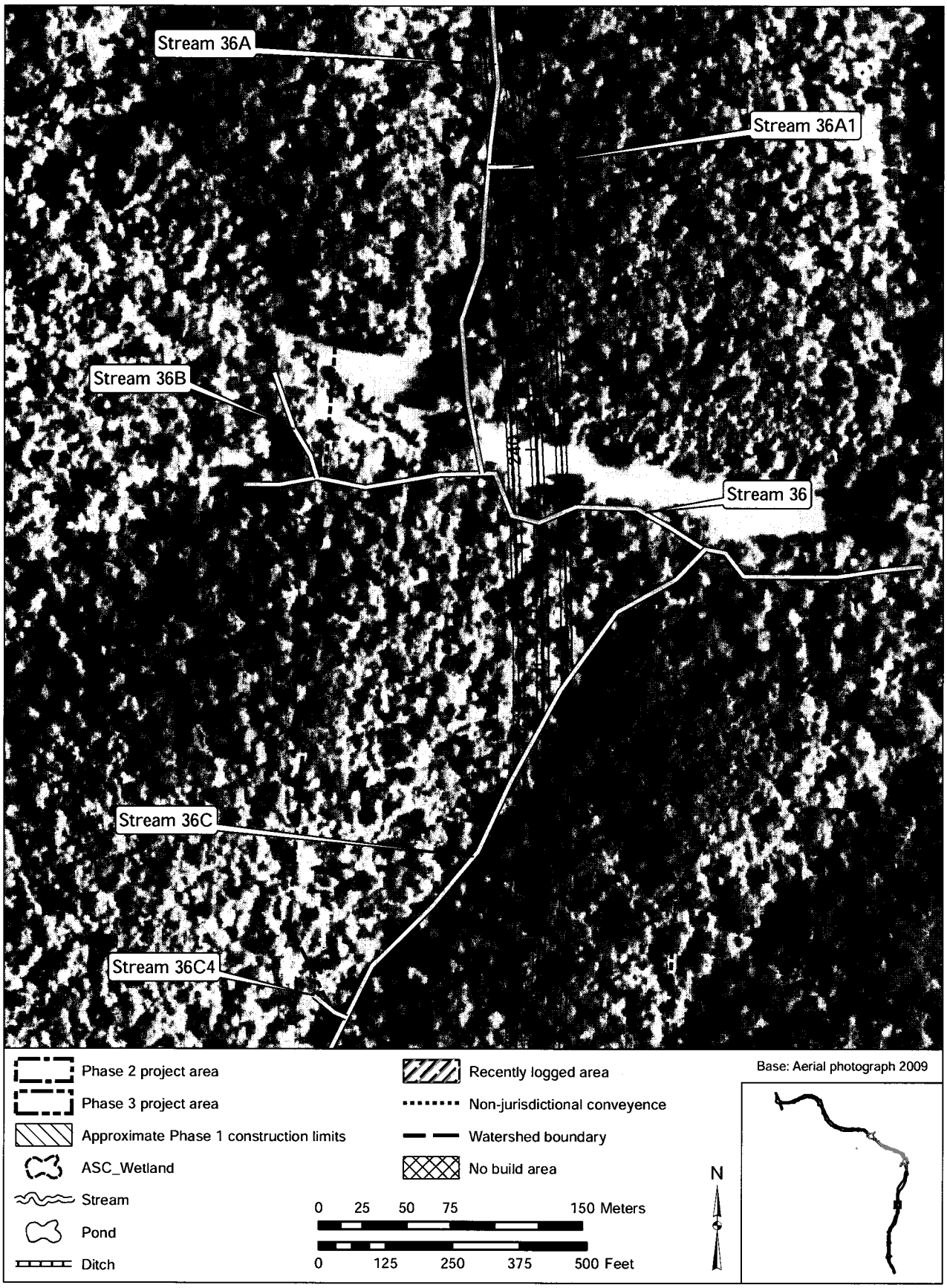

Figure 2. Survey results (Sheet 31 of 43)

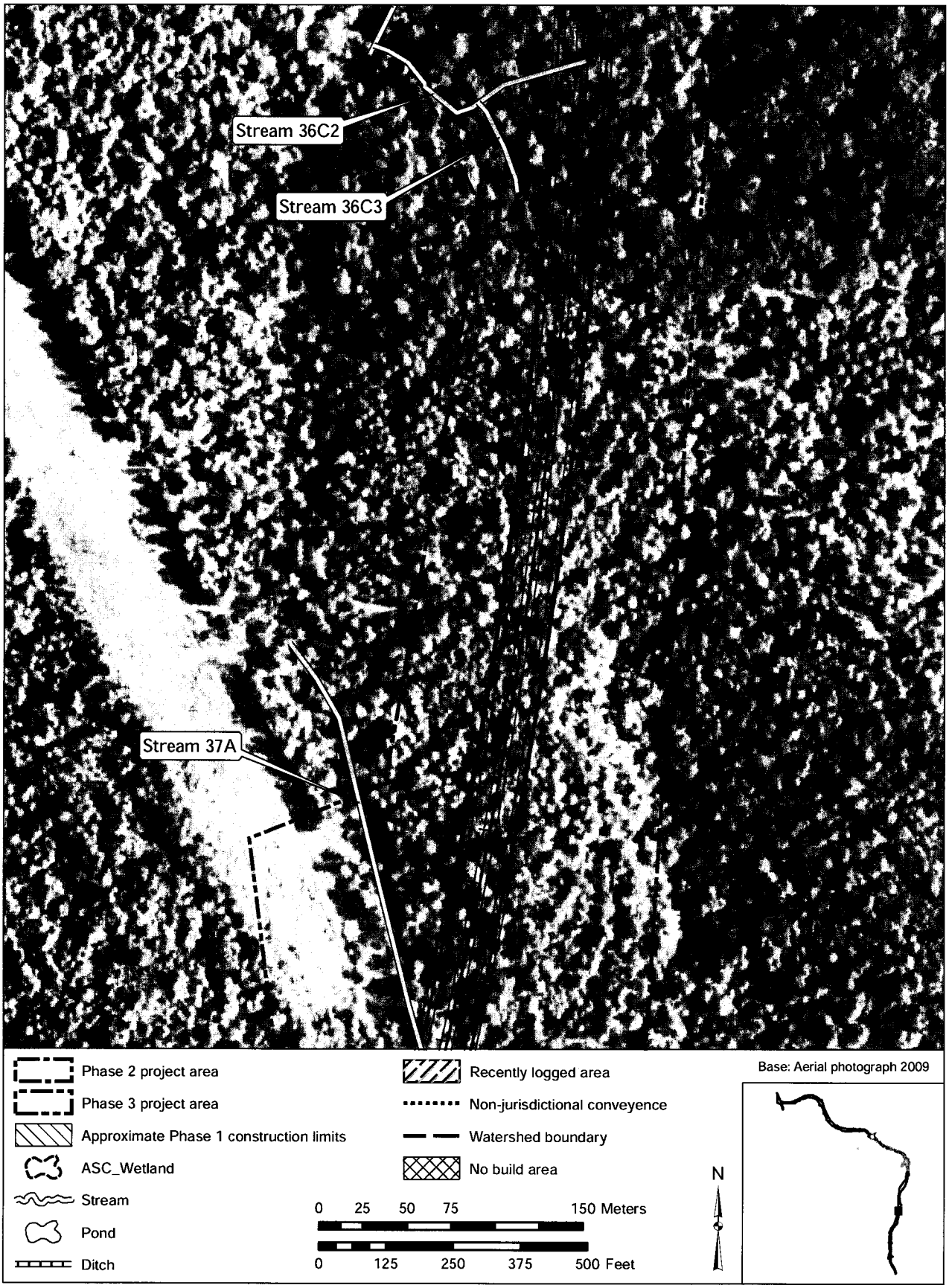

Figure 2. Survey results (Sheet 32 of 43)

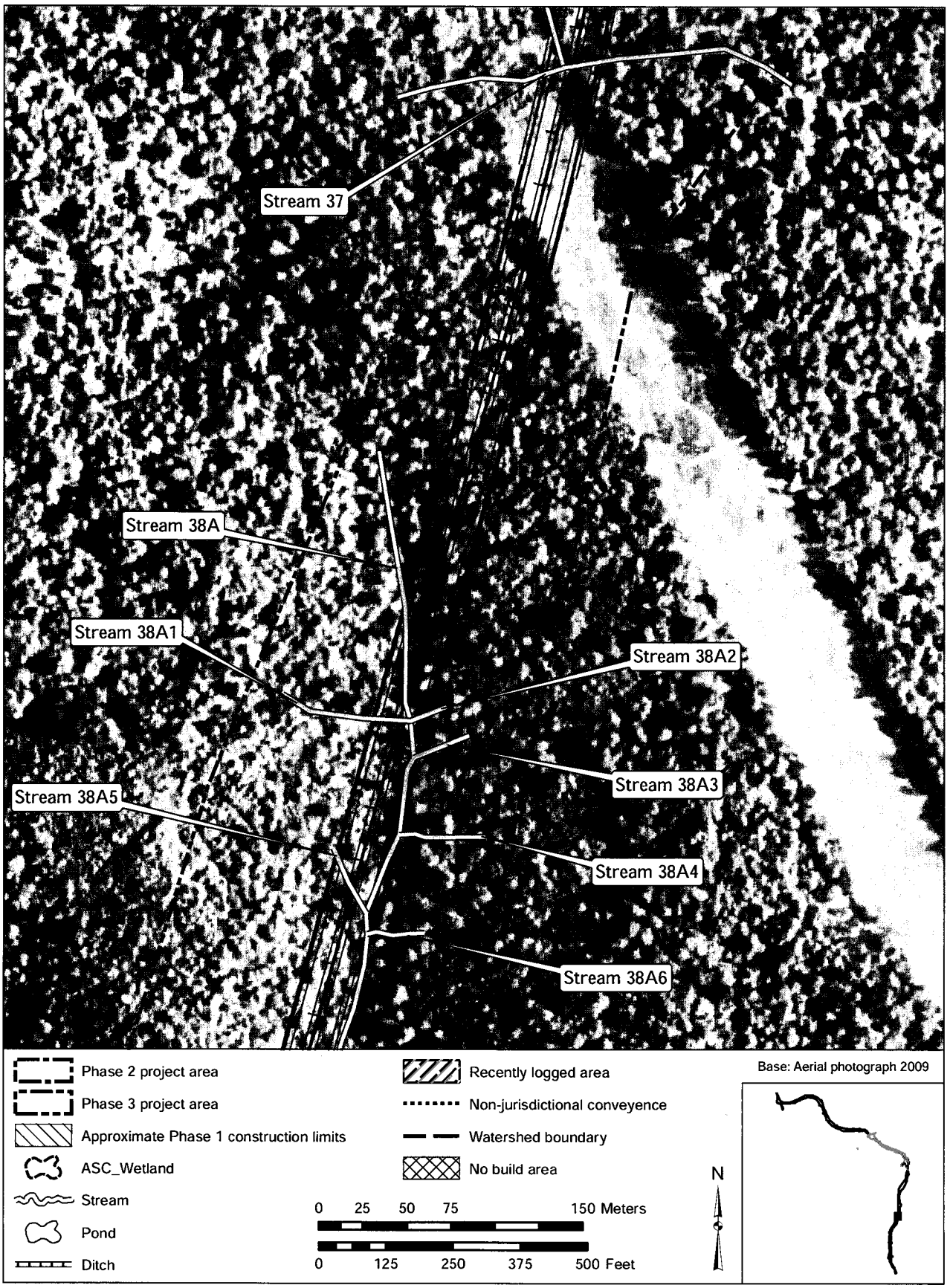

Figure 2. Survey results (Sheet 33 of 43)

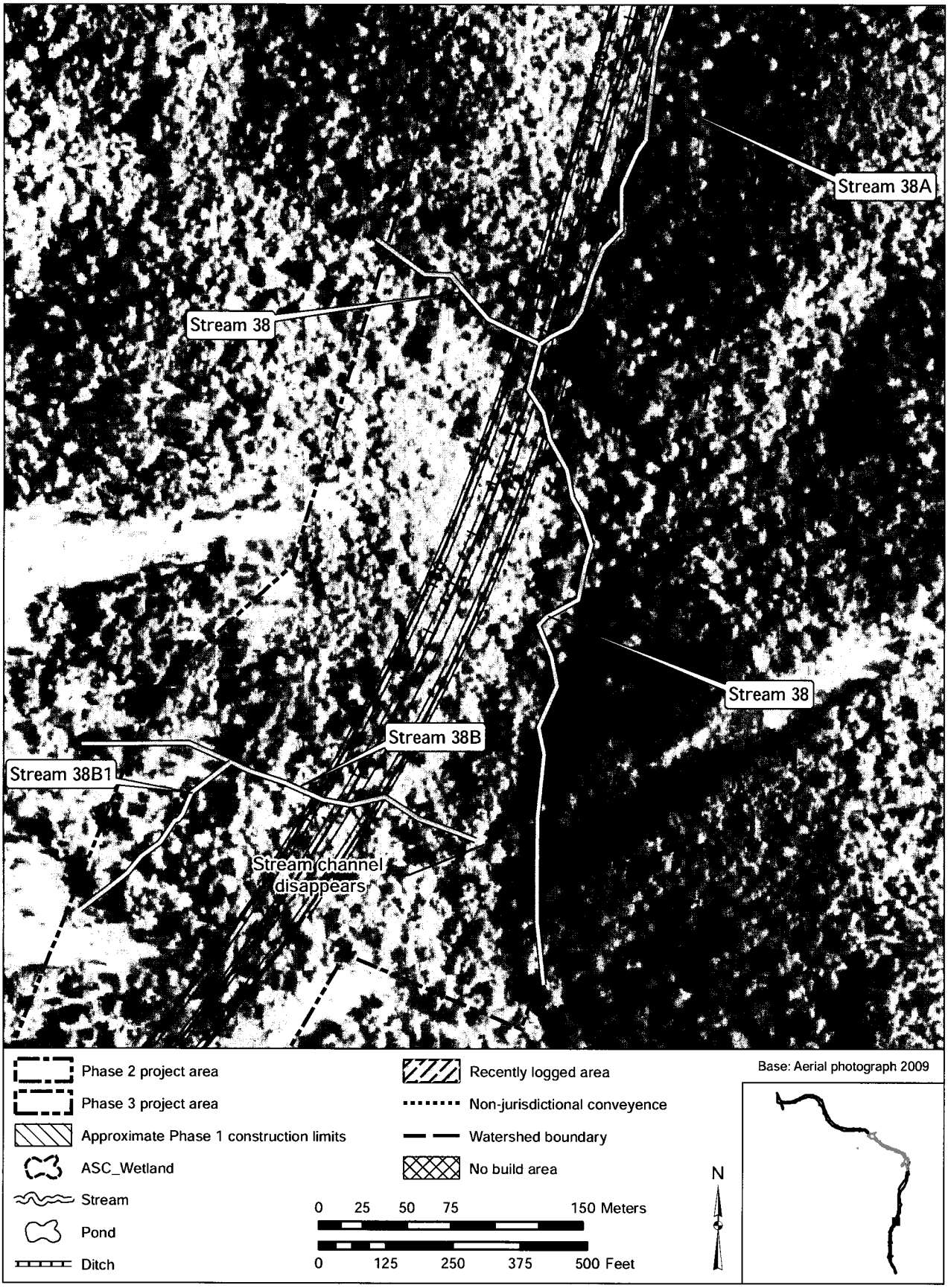

Figure 2. Survey results (Sheet 34 of 42)

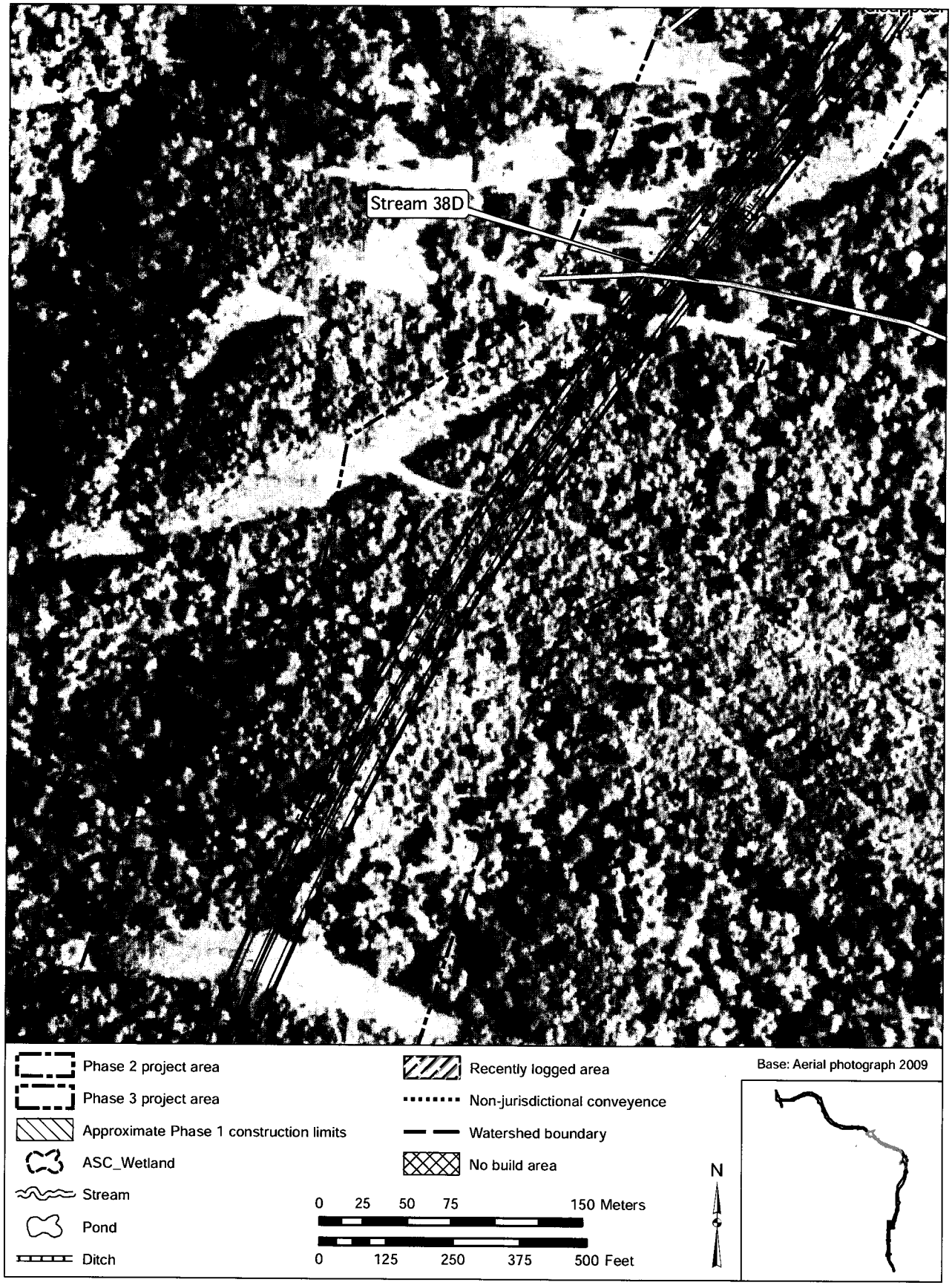

Figure 2. Survey results (Sheet 35 of 43)

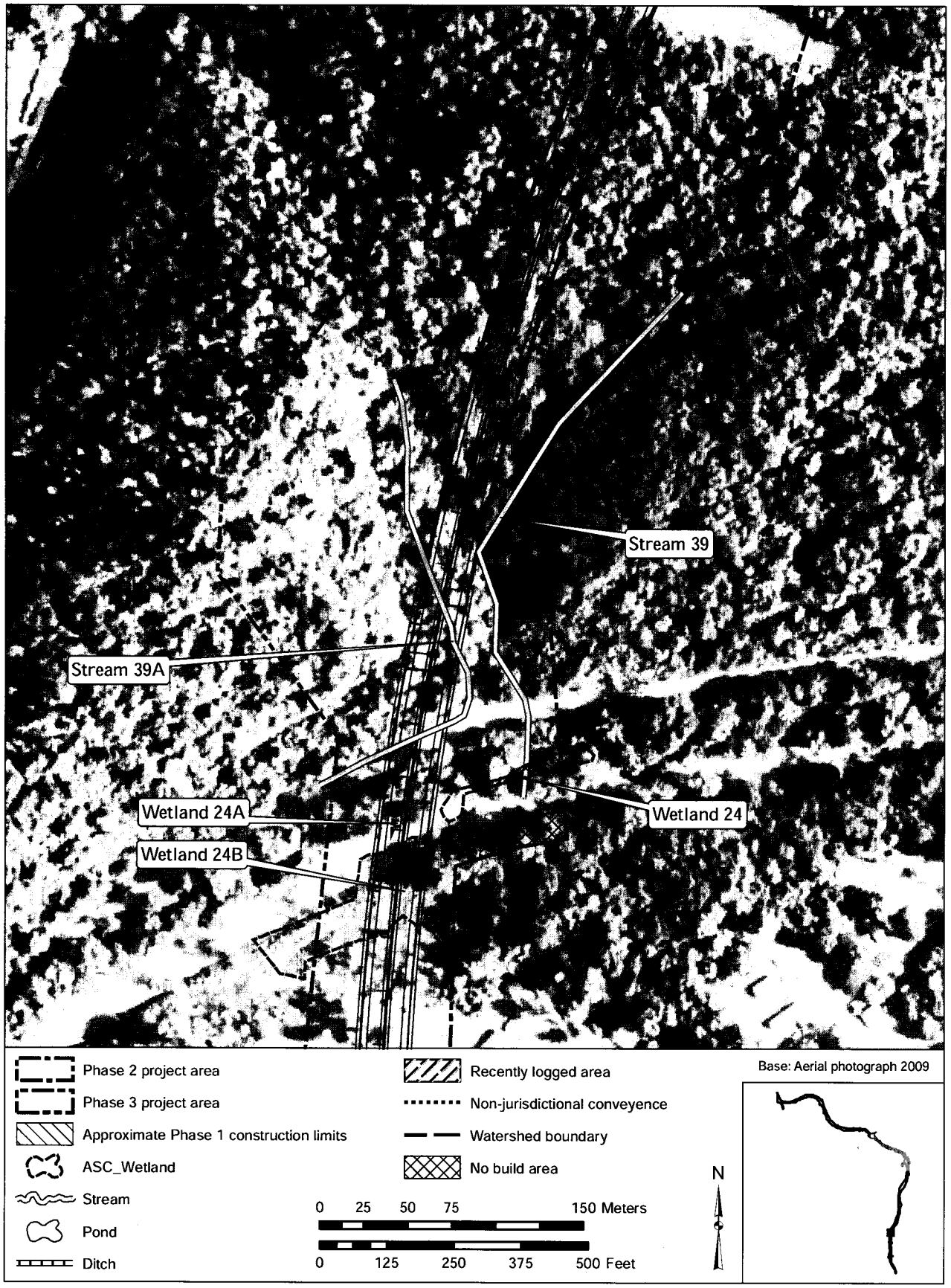

Figure 2. Survey results (Sheet 36 of 43)

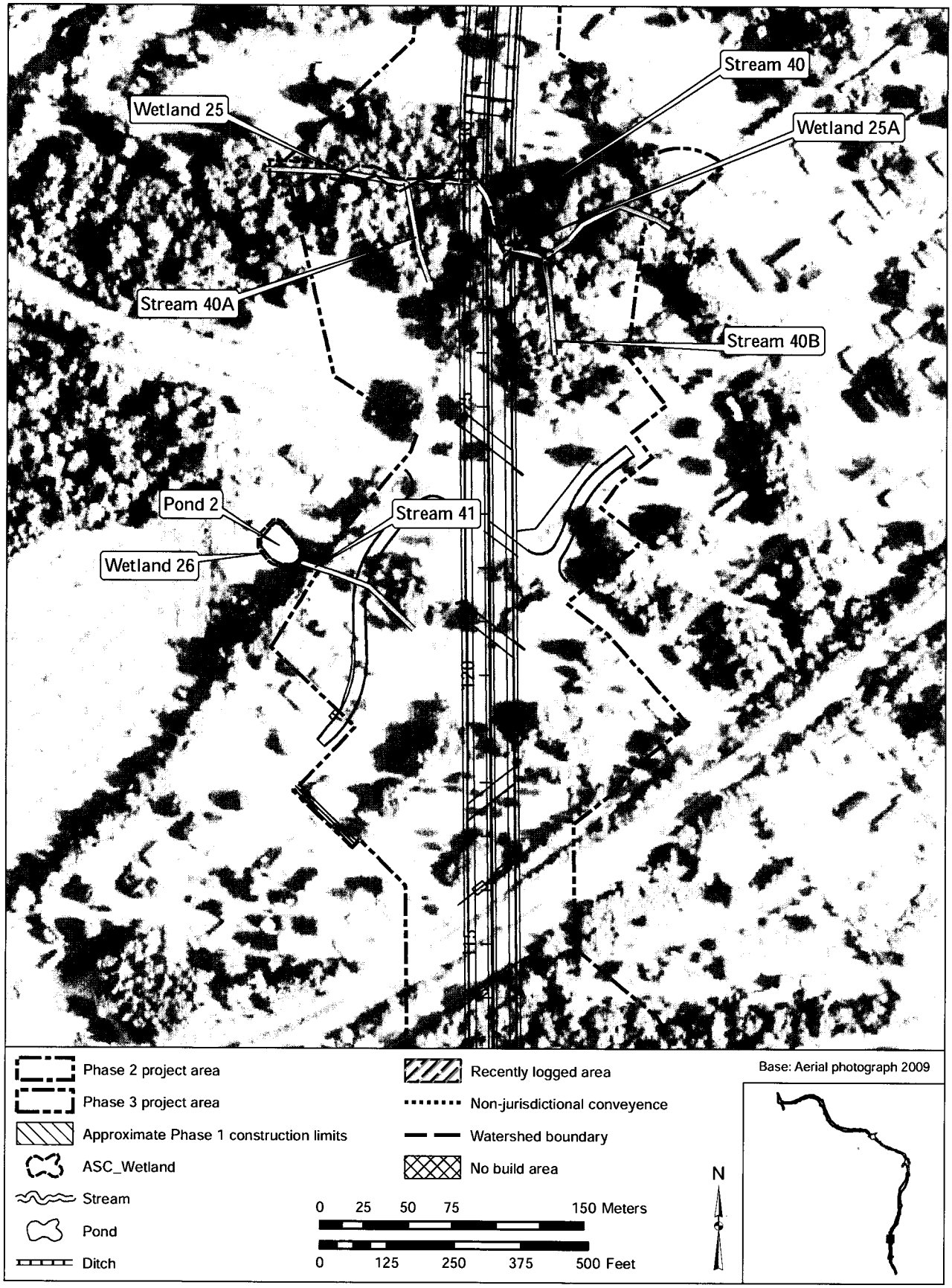

Figure 2. Survey results (Sheet 37 of 43)

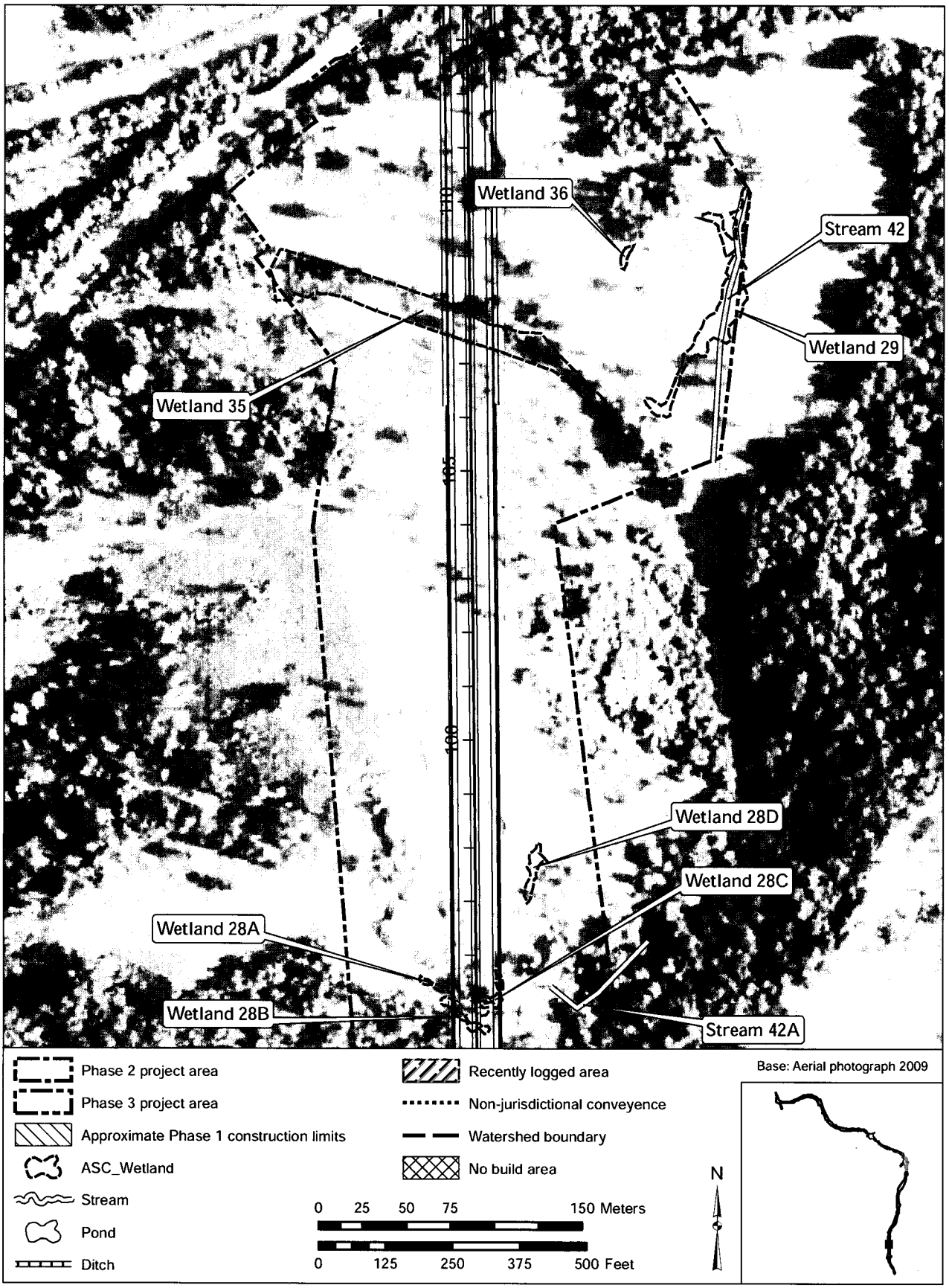

Figure 2. Survey results (Sheet 38 of 43)

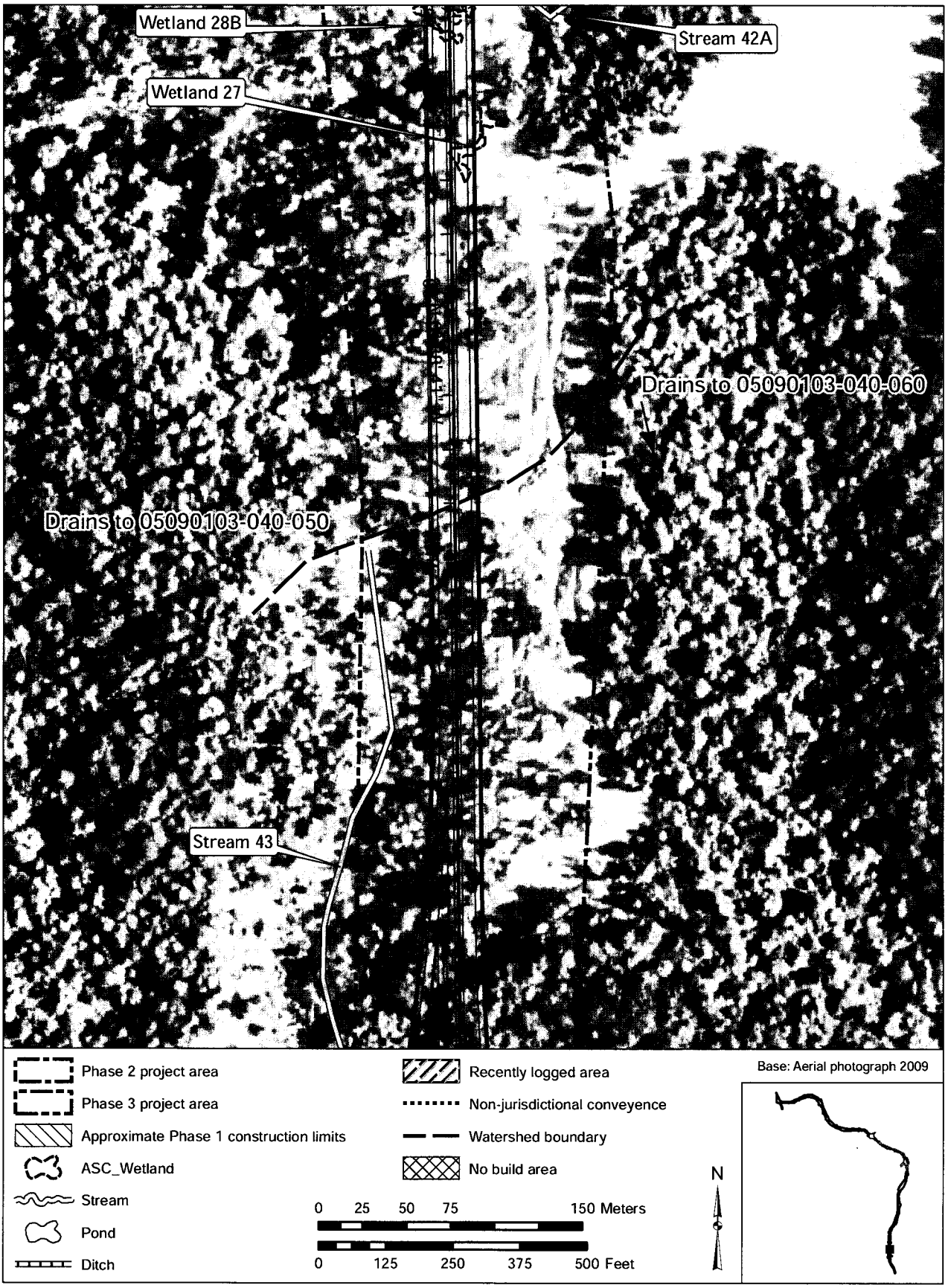

Figure 2. Survey results (Sheet 39 of 43)

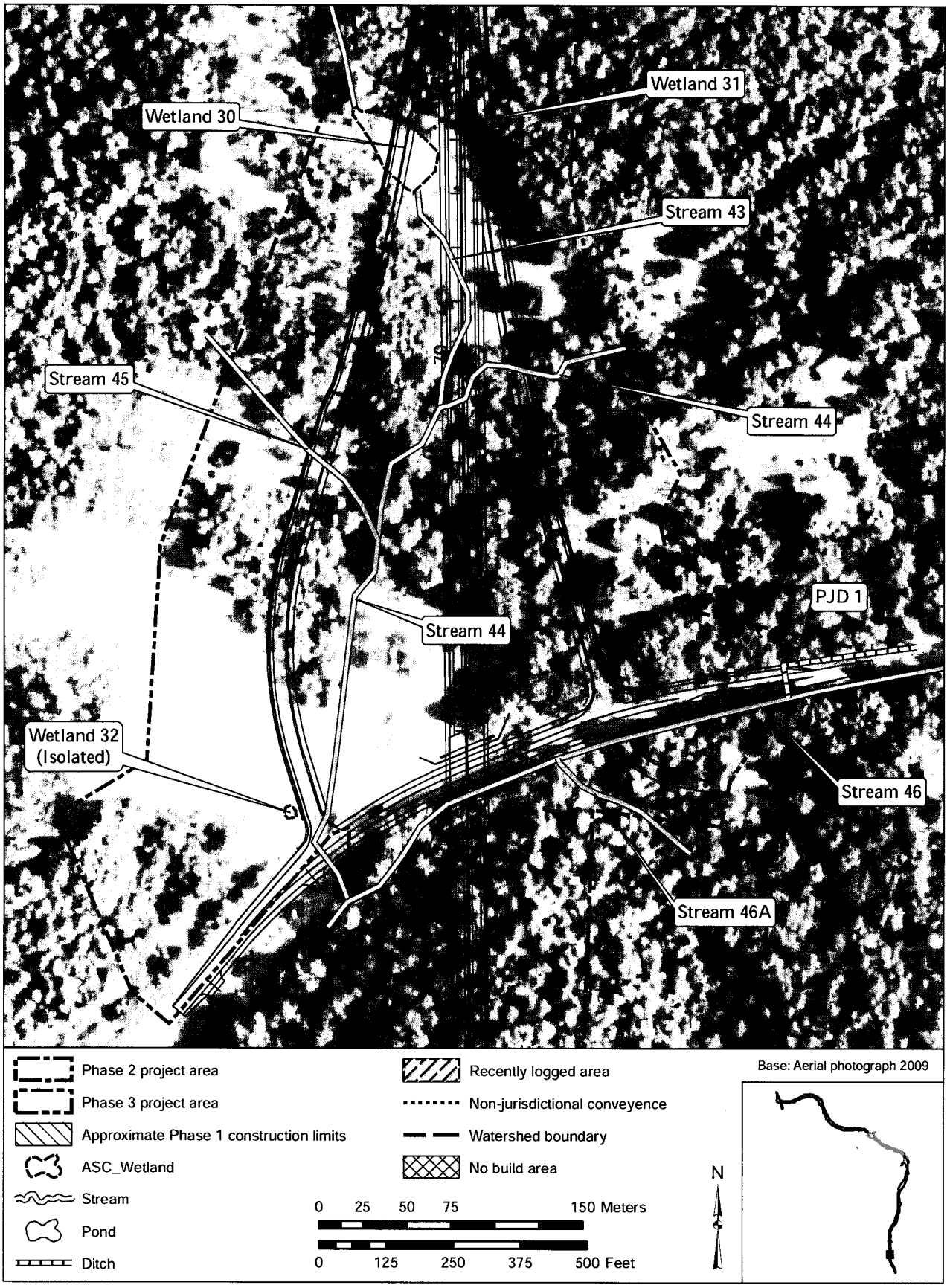

Figure 2. Survey results (Sheet 40 of 43)

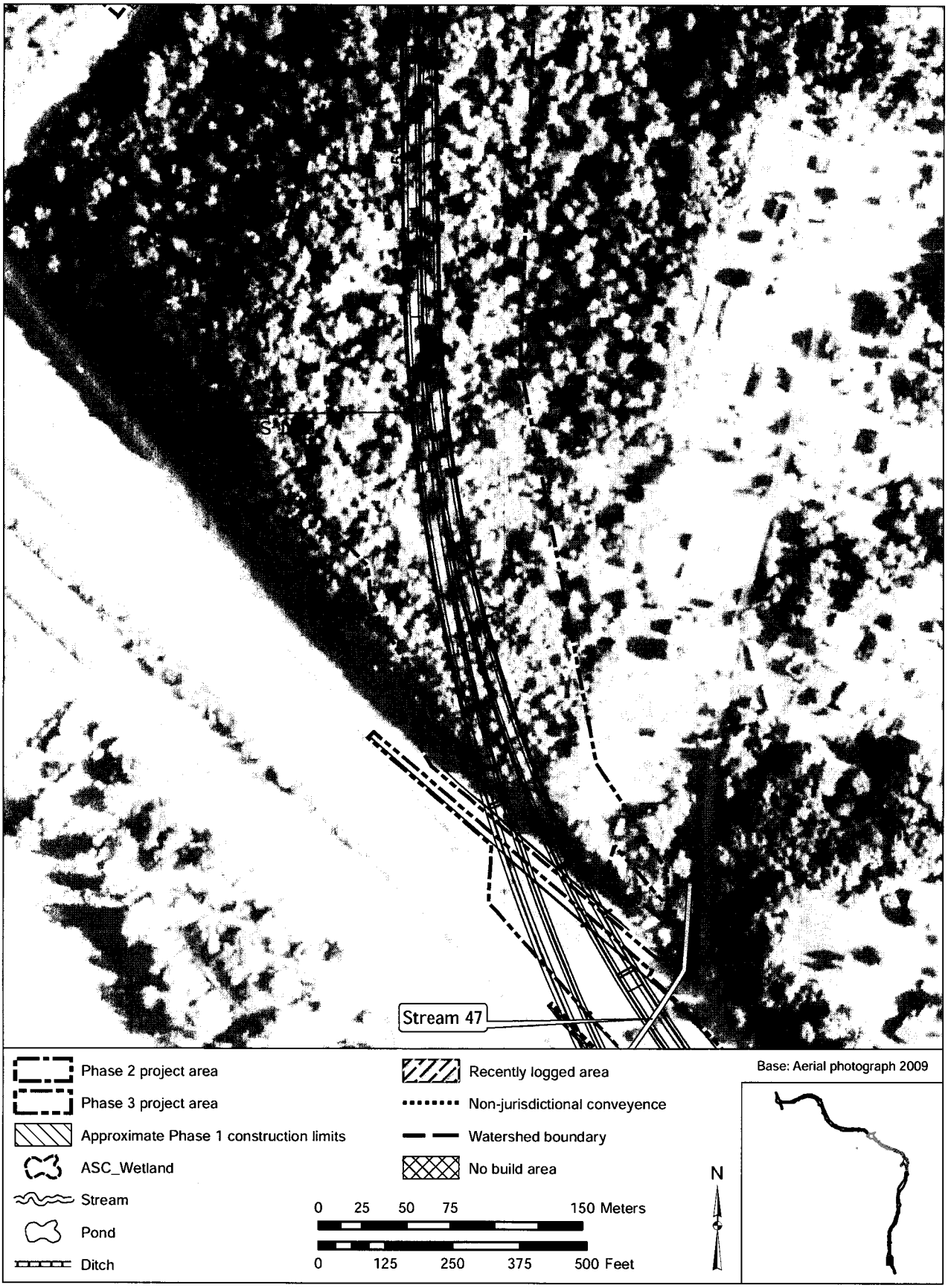

Figure 2. Survey results (Sheet 41 of 43)

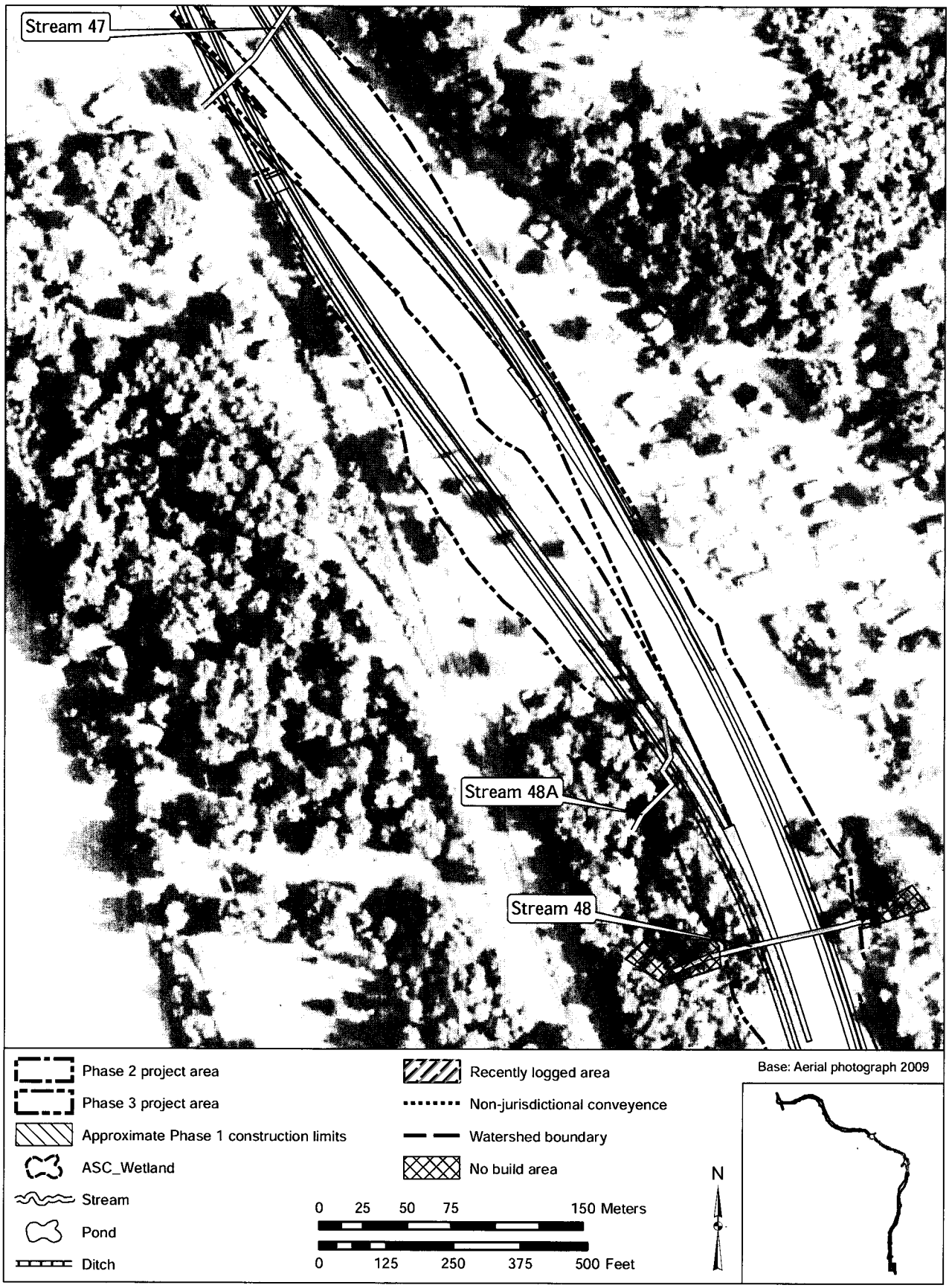

Figure 2. Survey results (Sheet 42 of 43)

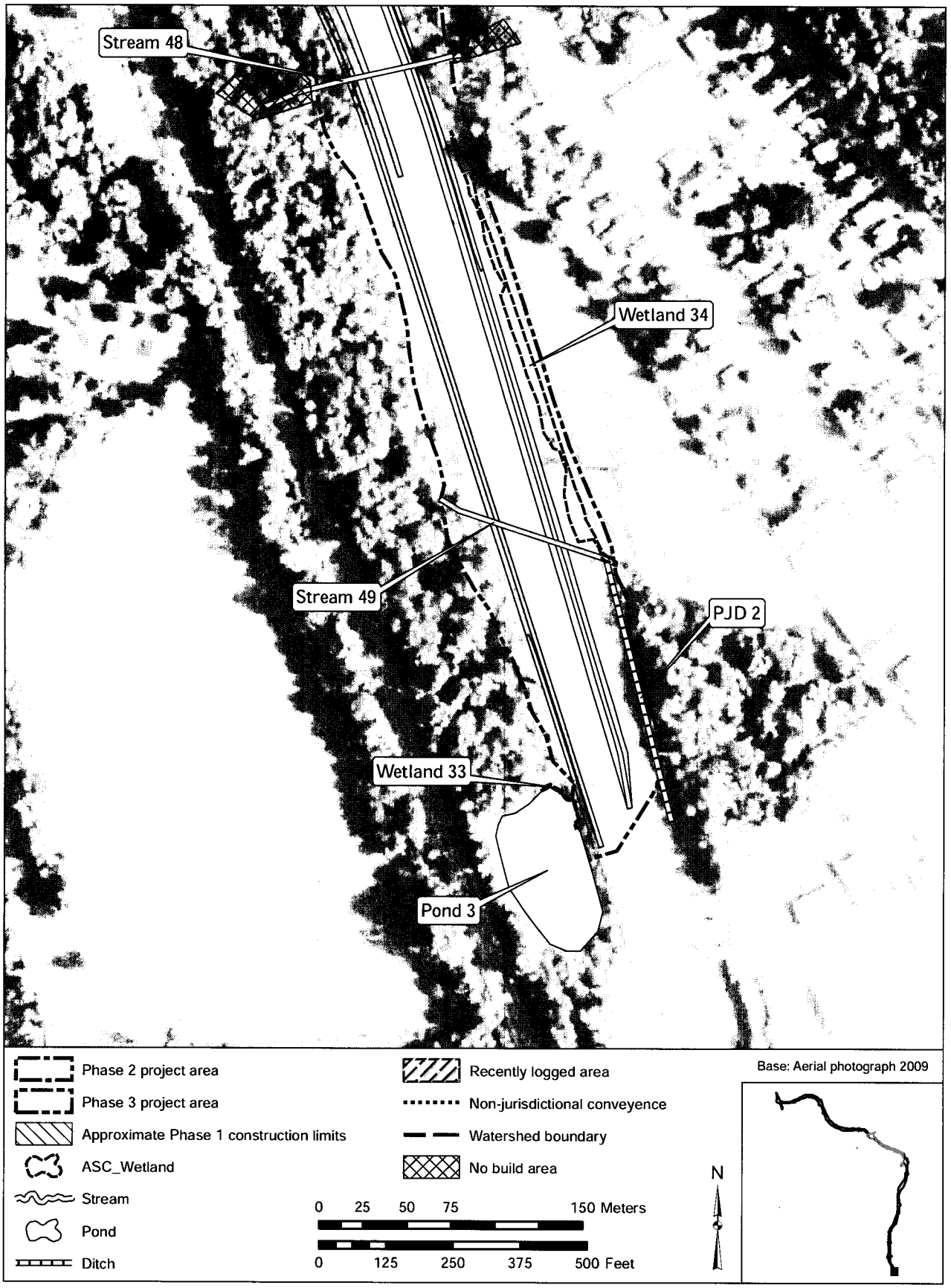

Figure 2. Survey results (Sheet 43 of 43)